TECHNICAL REPORT ON THE COAL RESOURCES OF THE CHANDGANA KHAVTGAI COAL RESOURCE AREA, KHENTII AIMAG, MONGOLIA

Prepared for:

Red Hill Energy Inc.
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and

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2 SUMMARY

The Chandgana Khavtgai Coal Resource Area is found in the northwest portion of the Khavtgai Uul Minerals Exploration Licence held by Red Hill Energy Inc. The resource area is located 290 kilometres east of Ulaanbaatar in Moron soum (sub-province) of Khentii aimag (province), Mongolia, and comprises approximately 1,636 hectares. The other coal exploration licences adjacent to the resource area are held to the north by Tethys Mining LLC, a fully-owned subsidiary of Companhia Vale do Rio Doce, and to the west by Adamas Mining LLC. The resource area has a continental climate with short warm summers and longer cold winters and is generally favourable for development of the coal resource.

The resource area is located in the Nyalga Depression within the Khentii Zone of the Khangai-Khentii fold system and is part of the Shorvogo Steppe physiographic province along the northern margin of the Gobi Desert. The topography is relatively featureless with a mean surface elevation of 1,142 m.

The coal seams belong to the Early Cretaceous age Zuunbayan Formation and are part of the southern end of the headwall portion of a faulted syncline. The coal seams subcrop along the western margin of the licence area and dip approximately 3° to the southeast. The resource area is bounded to the southeast by the Nyalga Basin Fault.

The exploration concept was that commonly used for stratiform deposits. The goal was to obtain information on the depth, thickness, and grade of the coal seams in the resource area. Exploration was performed in 2007 and included remote imagery interpretation, surface mapping, eight trenches, and seven core drill holes. Interpretation of imagery was done to locate major structural features and map the surficial geology. Surface mapping was performed to better locate the subcrop. Five shallow trenches were excavated within the subcrop in the hanging wall portion of the syncline and three were excavated in the footwall portion to confirm the subcrop and provide samples. Five drill holes were drilled through the major coal seam in the hanging wall portion with one drilled as a stratigraphic test and two were drilled in the footwall but encountered no coal seams. The coal seams were sampled through drill cores and trenches and analyses performed. This exploration provided information to define the resource area, characterize the geology, and estimate coal resources and quality with reasonable accuracy in order to enable preliminary coal marketing and extraction studies to proceed when appropriate. Further exploration is planned for 2008 including drilling and geophysical surveys. No development work or operations are active in the resource area.

The A Coal Seam is found throughout the resource area and varies from 23.8 to 61.1 m thick including several minor partings. The depth to the A Coal Seam varies from 3 to 228.5 m. Thinner, less extensive coal seams are found above the A Coal Seam. These upper coal seams have an aggregate thickness that varies from 0 to 12.8 m. The A Coal Seam is black and friable with poor competency. The partings are poorly indurated and have a moderate slake potential. The overburden is also poorly indurated with a moderate slake potential but contains few structural discontinuities. The A Coal Seam consists of a moderate grade low rank coal. The weighted average in-place assay (as-received basis) of the A Coal Seam within the resource area is 35.5% moisture, 8.9% ash, 3,800 kcal/kg heating value, and 0.5% sulphur. The apparent rank of the coal is Subbituminous C.

A Coal Seam Quality (as-received basis)				
Parameter	Moisture	Ash	Heating Value	Sulphur
	35.5%	8.9%	3,800 kcal/kg	0.5%
Combustion Loading		kg ash/Mkcal 1,509		kg SO_2/Mkcal 154

The total measured and indicated coal resource within the resource area is 656.9 million tonnes of which 187.7 million tonnes are in the measured and 469.3 tonnes are in the indicated categories. An additional 409.0 million tonnes are in the inferred category. The in-place strip ratio averages 1.9:1 over the resource area and varies from a minimum of 0.3:1 at the outcrop barrier to a maximum of 3.7:1 to the north.

Coal Seam Resources		
Coal Seam	Measured	Indicated
Upper Coal Seams	21.8 MMT	49.4 MMT
A Coal Seam	165.9 MMT	419.9 MMT
Total	187.7 MMT	469.3 MMT

The Chandgana Khavtgai Coal Resource Area contains a significant coal resource. The coal seams are thick and the strip ratio is low such that surface mining methods appear best suited to recover the coal. The coal is of moderate grade and low rank and appears suitable as a thermal coal but the large resource and moderate grade suggest the resource may also be suitable as a conversion feedstock.

Further exploration and analyses are recommended to place more of the resource in the higher assurance-of-existence categories and better characterize the resource. This includes augering, trenching, drilling, and geophysical surveys, core and bulk sampling, and more thorough and detailed analyses.

3 INTRODUCTION

This technical report describes the results of exploration performed in 2007 and the use of the results of the exploration to estimate the coal resources and coal quality of the Chandgana Khavtgai Coal Resource Area. This resource area is part the area included in the Khavtgai Uul Exploration Licence and is not an active or inactive mining project. The exploration reported here is part of a larger project by Red Hill Energy Inc. (Red Hill) to evaluate the lands within the exploration licence area.

This report was written to meet the requirements of the most recent revision of Canadian National Instrument 43-101 Standards of Disclosure for Mineral Projects (NI 43-101) and Appendix 3F Mining Standards Guidelines of the TSX Venture Exchange, of which the effective date for both is December 30, 2005.

The titles of some report sections required by Canadian National Instrument Form 43-101F1 are not applicable to coal resource geology. This is because of the differences in the nature, exploration methods, analytical methods, etc., used in coal resource geology compared to mineral resource geology for which the Form is mostly intended. Though the section titles given in the Form have been used, the intent and requirements of some sections were interpreted by the authors in terms of coal resource geology and the replies given are considered to satisfy the original intent and requirements.

For this technical report, each ASTM Designation referenced is not listed in Section 22 individually. Rather, all ASTM designations that are referenced can be considered referenced from the one ASTM reference listed.

3.1 Purpose, Information Sources, and Site Inspection

Mr. Ranjeet Sundher, Managing Director of Red Hill Energy Inc., Vancouver, British Columbia, Canada requested this technical report be prepared for Red Hill for filing with the TSX Venture Exchange of the Toronto Stock Exchange. Mr. Sundher, through Mr. Eric Robeck of Robeck Geoservices, LLC, a geological consultant to Red Hill, requested an independent estimate of the in-place coal resources and coal quality of the Chandgana Khavtgai Coal Resource Area from Mr. Christopher M. Kravits, CPG, LPG, of Kravits Geological Services, LLC, to support the filing. Mr. Kravits meets the requirements of a qualified person as described in NI 43-101.

The information used in this technical report came from government sources, the results of exploration performed in 2007, the site visit by Mr. Kravits, and conversations with Red Hill employees and Mr. Robeck. These are cited where used in the appropriate sections of the technical report.

Mr. Kravits performed a site inspection of the resource area on November 17, 2007 and was accompanied by Mr. Robeck, Dorlig Urtnasan and Genden Borkhuu, representatives of Red Hill, and Enkhbat Batnaran, Red Hill's driver. The scope of the inspection included:

1. Visitation of all drill sites which included obtaining GPS coordinates, noting the drill hole number on the casing, and obtaining photographs.
2. Visitation of the licence corners adjacent to the resource area which included obtaining GPS coordinates and photographs.
3. Visitation of the trenches excavated to confirm the subcrop and from which samples were obtained which included obtaining GPS coordinates and photographs.

4. Visitation of the coal subcrop where expressed as a linear shallow depression which included obtaining GPS coordinates and photographs.
5. Visitation of the coal subcrop where suspected below a playa which included obtaining GPS coordinates and photographs.
6. Visitation of the Chandgana Coal Mine operated by Berkh-Uul LLC (Berkh-Uul), located adjacent to Red Hill's Chandgana Tal mining licence 10126A to view the character of the coal seam and overburden.

There were no unreasonable discrepancies between the location of these features as shown on the maps and the coordinates given by Red Hill and that determined by Mr. Kravits. The details of the site inspection are reported to Mr. Robeck in a separate report dated November 27, 2007.

3.2 Disclaimer

As of the date of this technical report, to the best of Mr. Kravits' knowledge, this technical report contains all the scientific and technical information that is required to be disclosed to make this technical report not misleading.

Kravits Geological Services does not accept any liability and assumes no responsibility other than that required by statute to any individual, organisation, or corporate entity and assumes no responsibility for any loss or damage arising from the misuse of this technical report or the estimates, conclusions and other content contained in the technical report.

4 RELIANCE ON OTHER EXPERTS

Other experts and individuals were relied upon where Mr. Kravits required translation of Russian or Mongolian language documents, could not identify the source of certain data, or did not plan, supervise, or witness certain activities. Mr. Kravits disclaims responsibility for this information as described below.

Information on the regional geology was obtained from a report and map published by the former Soviet government (Orehov et al., 1962). This information was translated to the English language. This translated regional geology information was accepted for use by Mr. Kravits. Information on the surface geology of the Chandgana Khatvgai Coal Resource Area was obtained from Mr. Robeck through interpretation of satellite imagery, surface mapping, and during the course of exploration supervision. This information on local geology was reviewed and approved by Mr. Kravits based on results of his site inspection. The information on the regional and local geology obtained from these sources is used in Section 8 of the technical report. The certificate for Exploration Licence Number 11654X and subsequent changes and transfers were translated from the Mongolian language to the English language by the Translation Bureau of AGG LLC. Mr. Kravits assumes AGG LLC is a qualified translator and has relied on the accuracy of the translations. No attempt was made by Mr. Kravits to confirm the legality of these documents. The translated information is used in Section 5.

The drill site tasks (core logging, core preparation and sampling, geophysical logging, etc), other tasks such as geological sampling, data collection, tabulation, and modeling performed to support this technical report were done by Mr. Robeck or other responsible, but not necessarily qualified, individuals under Mr. Robeck's supervision. Mr. Kravits was not present during drilling but supervised some of the other tasks and verified the methods, assumptions, and results. Where Mr. Kravits could not supervise or verify methods or assumptions he has relied on the documentation prepared by these responsible parties and conversations with these parties to determine that the tasks were performed correctly or the methods and assumptions used to perform various tasks are valid and appropriate. This information is used in Sections 10, 11, 12, and 13.

The identification of some drill holes and their assignment to the correct geophysical and lithologic logs relied on the knowledge of Mr. Robeck. Though the headers of geophysical and lithologic logs contain the drill hole number, they do not contain coordinates or sufficient locational information to ensure they are of the drill holes indicated. Also, some drill holes do not contain identification information on the surface casing or by some other means. For most drill holes, the drill hole number on the logs was matched to the identification information on the casing. These were further confirmed by comparison of GPS coordinates obtained during the site visit to those in the drill hole database and confirmation by Mr. Robeck. But for those drill holes without identification information, Mr. Kravits relied on identification by Mr. Robeck. This was supported by comparison of the drill hole number contained in the log header to the GPS coordinates of the drill hole then to the coordinates in the drill hole database.

Mr. Kravits relied upon the affirmation by Mr. Chris Murray (communication via email, 2007) of SGS-CSTC Standards Technical Services Company, Ltd. (SGS) that each analysis report containing drill hole, sample number, and drilled depth information came from analysis of the sample described. Mr. Murray stated that SGS uses a laboratory information system that tracks each sample from receipt to the analysis report and no errors occurred. This information is used in Section 10. Reconciliation of the analyses to the lithologic and geophysical logs by Mr. Kravits indicates that the analyses do represent the sample indicated on the analyses.

5 PROPERTY DESCRIPTION AND LOCATION

The Chandgana Khavtgai Coal Resource Area is a portion of the area included in the Khavtgai Uul Minerals Exploration Licence Number 11654X issued by the Government of Mongolia. The form of tenure is a licence issued by the government rather than any type of ownership.

5.1 Location and Size

The Chandgana Khavtgai Coal Resource Area is located on the northwest portion of the Khavtgai Uul Minerals Exploration Licence, hereinafter referred to as the Chandgana Khavtgai licence (Figure 1). The resource area encompasses approximately 1,636 hectares of the 37,271 hectare licence. The central coordinates of the resource area are approximately 416271 E 5216113 N UTM Zone 49 North, WGS 1984 datum.

5.2 Exploration Licence Description

The Khavtgai Uul Minerals Exploration Licence Number 11654X is held by Red Hill Energy Inc. and authorizes the conduction of exploration work to 37,271 hectares. The coordinates of the vertices of the licence boundary are shown in Table 1.

KHAVTGAI UUL MINERAL EXPLORATION LICENSE BOUNDARY					
Vertex	Longitude	Latitude	Vertex	Longitude	Latitude
1	109° 52' 0"	47° 18' 10"	13	110° 3' 14.4"	47° 5' 24"
2	110° 0' 0"	47° 18' 10"	14	110° 4' 30"	47° 5' 24"
3	110° 0' 0"	47° 11' 0"	15	110° 4' 30"	47° 4' 20"
4	110° 6' 0"	47° 11' 0"	16	109° 52' 0"	47° 4' 20"
5	110° 6' 0"	47° 17' 0"	17	109° 52' 0"	47° 6' 12"
6	110° 16' 0"	47° 17' 0"	18	109° 54' 38"	47° 6' 12"
7	110° 16' 0"	47° 13' 0"	19	109° 54' 38"	47° 10' 50"
8	110° 8' 0"	47° 13' 0"	20	109° 58' 10"	47° 10' 50"
9	110° 8' 0"	47° 9' 30"	21	109° 58' 10"	47° 12' 50"
10	110° 6' 0"	47° 9' 30"	22	109° 53' 20"	47° 12' 50"
11	110° 6' 0"	47° 10' 30"	23	109° 53' 20"	47° 11' 29"
12	110° 3' 14.4"	47° 10' 30"	24	109° 52' 0"	47° 11' 29"

Table 1

The licence expires on April 7, 2009, and remains active so long as the annual licence fee is paid. The issuer of the licence is the Mineral Resources and Petroleum Authority of Mongolia which administers the mineral and petroleum resources owned by Mongolia. The term of tenure for an exploration licence may be extended twice, for an additional three years on each extension. An exploration licence holder has the right to (1) access the exploration area and build temporary structures for use in exploration, (2) pass through land surrounding the exploration area for the purpose of entering the exploration area, (3) exercise the rights of the licence by passing through land owned or possessed by others upon their approval, and (4) the exclusive right to obtain mining licences within the exploration licence area.

No environmental liabilities are known to which the Khavtgai Uul Minerals Exploration Licence is subject. The exploration work planned and any recommended exploration would be done under the existing Khavtgai Uul Minerals exploration licence.

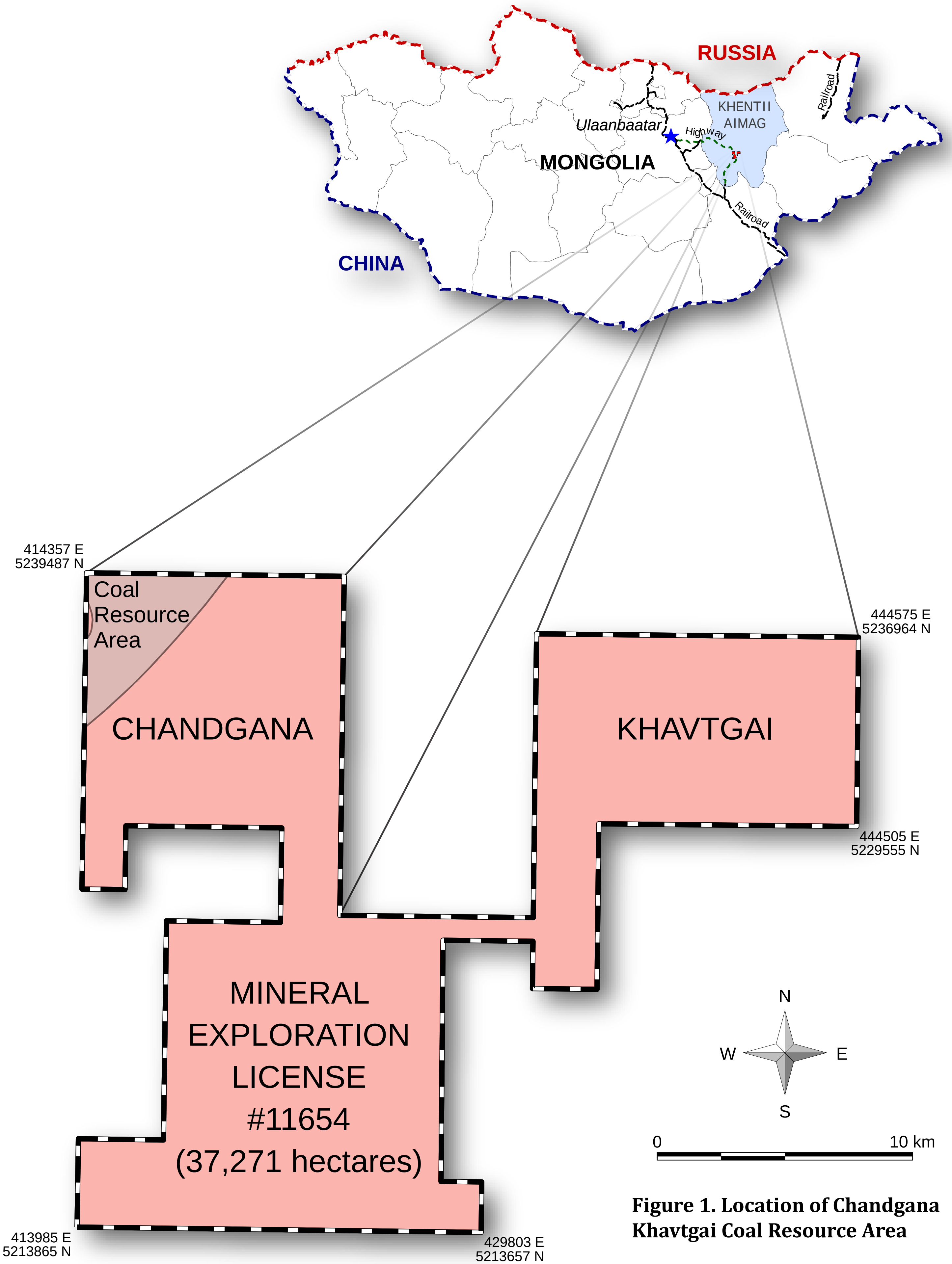


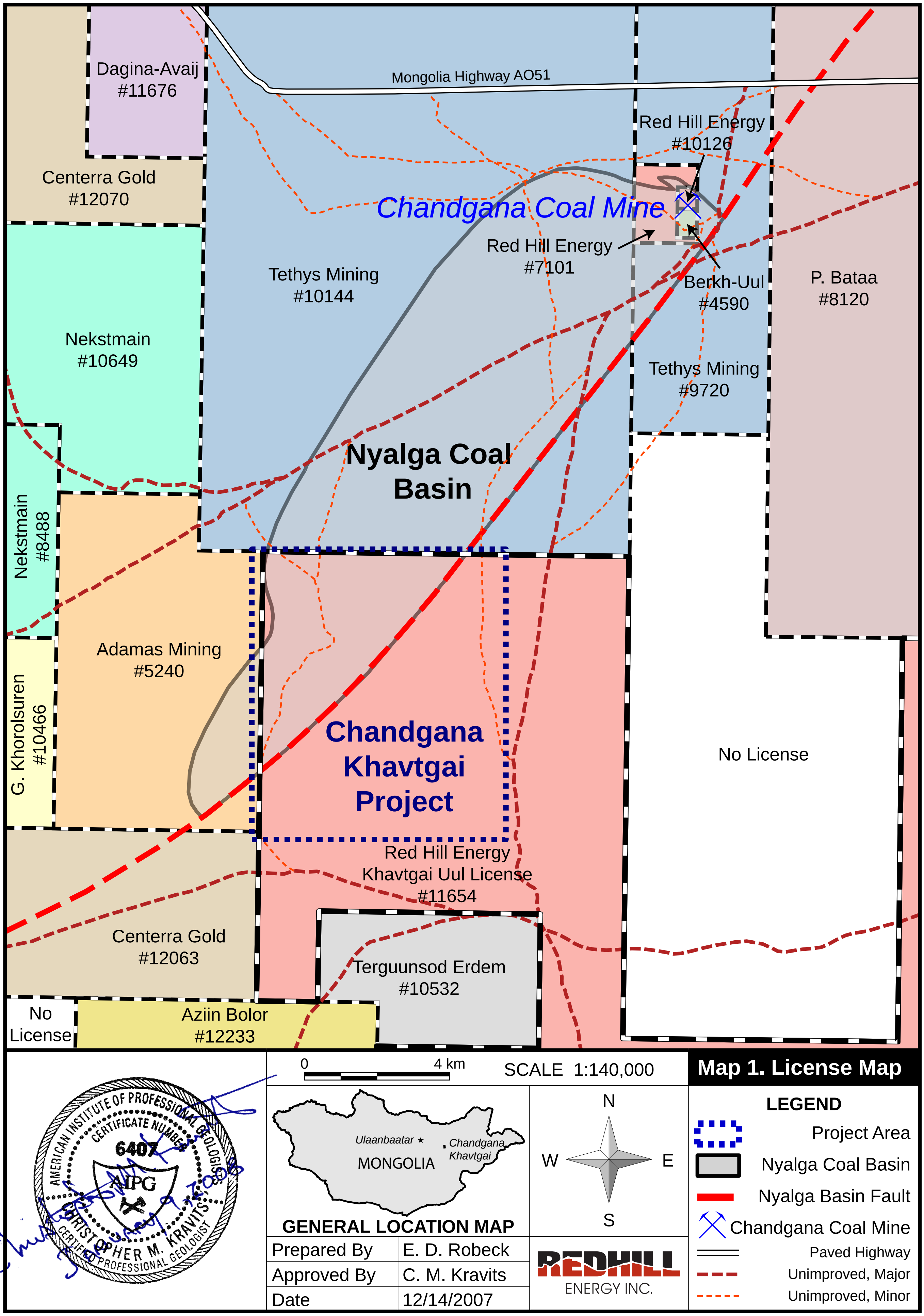
Figure 1. Location of Chandgana Khavtgai Coal Resource Area

5.3 Resources and Mining Activity Outside the Licence

Coal resources are known to be present along the same structural trend to the northeast and southwest of the resource area. Their depth and coal seam thickness are expected to be similar to that of the resource area and the Chandgana Tal Coal Project.

The closest mine is the Chandgana Coal Mine located approximately 9 km to the northeast, part of Red Hill's Chandgana Tal Coal Project (Map 1). A portion of this mine is operated by Berkh-Uul and was intermittently active during 2005, 2006, and 2007. The mine area includes unreclaimed spoil piles but there are no tailings ponds.

There are no important natural features outside the resource area. The only improvements outside the resource area are the Ulaanbaatar-Ondorhaan highway (AO501), a 35 kV electric distribution line to the Chandgana Coal Mine, and several unpaved but occasionally maintained dirt roads.


Map 1. License Map
Dagina-Avaij #11676
Mongolia Highway AO51
Centerra Gold #12070
Red Hill Energy #10126
Chandgana Coal Mine
Red Hill Energy #7101
Tethys Mining #10144
Berkh-Uul #4590
P. Bataa #8120
Nekstmain #10649
Tethys Mining #9720
Nyalga Coal Basin
Nekstmain #8488
Adamas Mining #5240
G. Khorolsuren #10466
Chandgana Khavtgai Project
No License
Red Hill Energy Khavtgai Uul License #11654
Centerra Gold #12063
Terguunsod Erdem #10532
No License
Aziin Bolor #12233
0
4 km
SCALE 1:140,000
Ulaanbaatar
Chandgana Khavtgai
MONGOLIA
GENERAL LOCATION MAP
N
W
E
S
AMERICAN INSTITUTE OF PROFESSIONAL GEOLOGISTS
CERTIFICATE NUMBER
6407
AIPG
CHRISTOPHER M. KRAVITS
CERTIFIED PROFESSIONAL GEOLOGIST
Prepared By | E. D. Robeck
Approved By | C. M. Kravits
Date | 12/14/2007
REDHILL ENERGY INC.
LEGEND
Project Area
Nyalga Coal Basin
Nyalga Basin Fault
Chandgana Coal Mine
Paved Highway
Unimproved, Major
Unimproved, Minor

6 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

6.1 Accessibility

Access to the Chandgana Khavtgai Coal Resource Area is possible by ground vehicle and helicopter or possibly small airplane. Ground vehicles may enter the resource area by driving the Ulaanbaatar-Ondorhaan highway (AO501) 290 km east then turning south on any of several unpaved roads and driving 16 km to the resource area (Map 2). The highway is an all-weather road capable of supporting truck traffic. The unpaved roads on the resource area are generally in good condition and drivable throughout the year. However, the dirt roads can only support truck traffic when dry and only on certain sections. Helicopters may fly to the resource area and land almost anywhere. Small airplanes may also fly to the resource area but landing and take-off is only possible on several stretches of unpaved road. The elevation is not too high for helicopters or small planes although winds may be an issue at certain times of the year.

There is no access by railroad or water. The nearest railroad spurs end at Bor-Ondor, 118 km south and the Baganuur Coal Mine, 124 km west of the Chandgana Khavtgai Coal Resource Area and adjacent to the Ulaanbaatar-Ondorhaan highway. The Herlen River is the closest major river and is not navigable.

6.2 Climate and Vegetation

The resource area has a continental climate with warm and dry but short summers and cold and dry winters. The area is generally windy with wind direction from the northwest or northeast at speeds of 4-7 m/sec but reaching 20 m/sec in the spring. The warmest temperatures are in June-July with highs around 40° C and the coldest in December-January with lows around -30° C. Snow accumulation averages 10 cm in flat areas but may drift to 1 m. The annual precipitation varies from 10 to 50 cm and most falls as rain in August (Behre Dolbear, 2007).

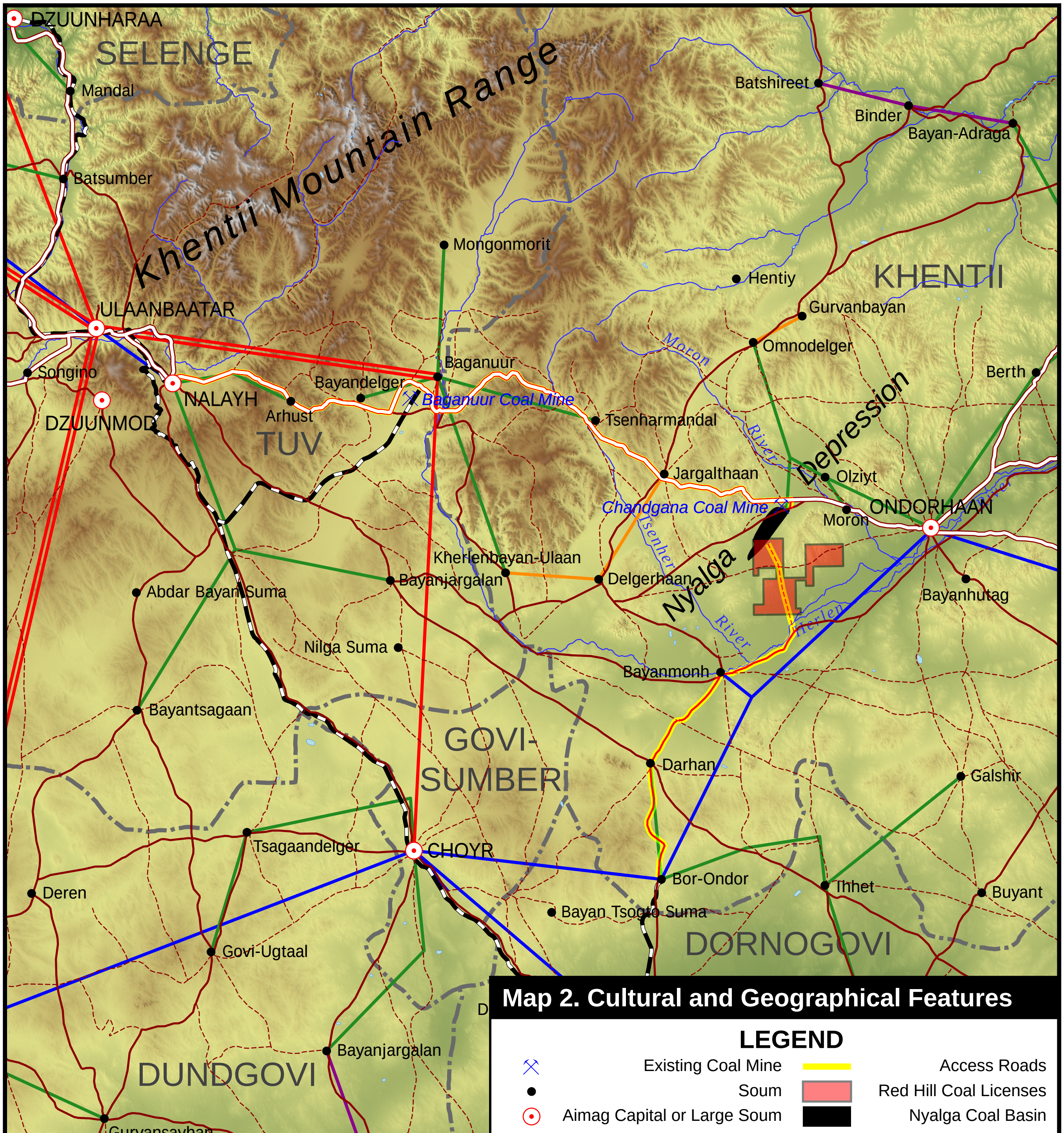
The surface is predominantly grass-covered although there are some low shrubs on the hills. There are no forested areas in or near the resource area.

6.3 Local Resources

Surface water is not readily available in the resource area. The nearest flowing water is the Herlen River 30 km to the southeast (Map 2). Otherwise surface water may only be available from dry stream courses and ephemeral lakes during the summer wet season. There are no lakes or reservoirs. Groundwater appears to be available because the 2007 exploration drilling encountered an artesian aquifer in three of the seven drill holes. The size and production capacity of this aquifer has not been evaluated.

6.4 Infrastructure and Population Centres

The only infrastructure within or nearby the Chandgana Khavtgai Resource Area is the Ulaanbaatar-Ondorhaan highway (AO501), a 110 kV power transmission line to the south, a 35 kV distribution line to the Chandgana Coal Mine, and cellular phone coverage. The highway is located 16 km north and is a paved all-weather highway (Map 2). There are no water or natural gas pipelines, telephone lines, canals, or water retention structures within or nearby the resource area.



Map 2. Cultural and Geographical Features

LEGEND

Existing Coal Mine	Access Roads
Soum	Red Hill Coal Licenses
Aimag Capital or Large Soum	Nyalga Coal Basin
Railroad	
Paved Highway	
Unimproved Road, Major	
Unimproved Road, Minor	
Aimag Border	
River	
Lake	

Topographic Relief (m)

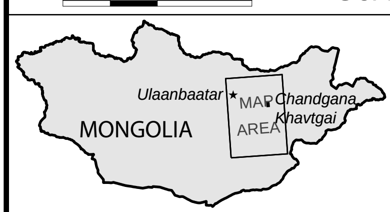
2500
2350
2200
2050
1900
1750
1600
1450
1300
1150
1000
850
700

Electric Transmission Lines

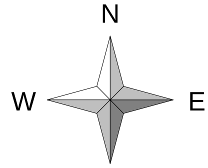
220 kV (x2)
220 kV (x1)
110 kV
35 kV
15 kV
10 kV

0 50 km

SCALE 1:2,000,000



GENERAL LOCATION MAP



Prepared By	E. D. Robeck
Approved By	C. M. Kravits
Date	01/08/2008

REDHILL ENERGY INC.

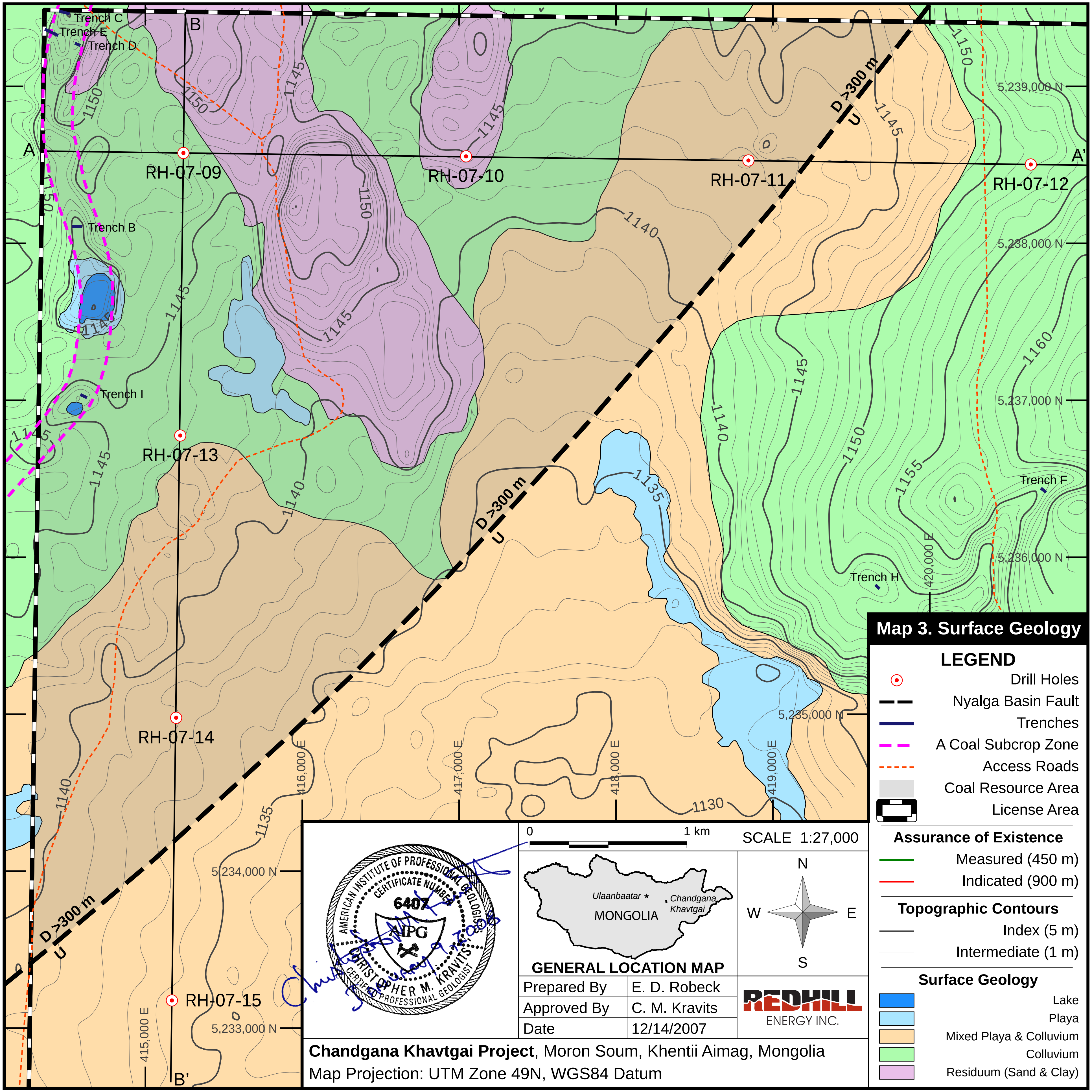
Chandgana Khavtgai Project, Moron Soum, Khentii Aimag, Mongolia

There are no population centres within the resource area. The nearest are the Chandgana farming centre 17 km north and Moron and Ondorhaan soums 20 and 55 km to the east, respectively.

6.5 Physiography

The resource area is located in an intermontane valley between the Nyalga Depression to the southwest and the Shorvogo Basin to the northwest. The Khentii Mountain Range is northwest and the Hongor Mountains are southeast of the resource area. The physiography of the resource area consists of a broad flat with low hills to the northwest and east otherwise there are no prominent physiographic features. The drainage bottoms are 1 to 5 m below the surface and are usually dry. The bottoms of the ephemeral lakes are 0.5 to 1 m below the surface.

The surface elevations of the resource area vary from 1129 m to 1164 m making for a relief of 35 m (Map 3). The low flat areas average 1135 m and the hills 1152 m in elevation.


Map 3. Surface Geology
LEGEND
Drill Holes
Nyalga Basin Fault
Trenches
A Coal Subcrop Zone
Access Roads
Coal Resource Area
License Area
Assurance of Existence
Measured (450 m)
Indicated (900 m)
Topographic Contours
Index (5 m)
Intermediate (1 m)
Surface Geology
Lake
Playa
Mixed Playa & Colluvium
Colluvium
Residuum (Sand & Clay)
0
1 km
SCALE 1:27,000
GENERAL LOCATION MAP
MONGOLIA
Ulaanbaatar
Chandgana Khavtgai
N
E
S
W
Prepared By
E. D. Robeck
Approved By
C. M. Kravits
Date
12/14/2007
REDHILL
ENERGY INC.
AMERICAN INSTITUTE OF PROFESSIONAL GEOLOGISTS
CERTIFICATE NUMBER
6407
AIPG
CHRISTOPHER M. KRAVITS
CERTIFIED PROFESSIONAL GEOLOGIST
Chandgana Khavtgai Project, Moron Soum, Khentii Aimag, Mongolia
Map Projection: UTM Zone 49N, WGS84 Datum
RH-07-09
RH-07-10
RH-07-11
RH-07-12
RH-07-13
RH-07-14
RH-07-15
Trench C
Trench E
Trench D
Trench B
Trench I
Trench F
Trench H
A
A'
B
B'
D >300 m
U
5,239,000 N
5,238,000 N
5,237,000 N
5,236,000 N
5,235,000 N
5,234,000 N
5,233,000 N
415,000 E
416,000 E
417,000 E
418,000 E
419,000 E
420,000 E
1130
1135
1140
1145
1150
1155
1160

7 HISTORY

The Khavtgai Uul Minerals Exploration Licence was originally granted to Deej Bayalag LLC and issued on April 7, 2007 under registration number 9011039094. No previous licences are known. The second year licence fee was paid on May 22, 2007. The licence was transferred to Red Hill Mongolia LLC, a subsidiary of Red Hill Energy Inc. on October 12, 2007, under registration number 90190101078 with no change in the size or boundaries.

There has been previous exploration for coal near the resource area. The former Soviet government explored for coal by drilling and trenching in 1962 and drilling in 1980 in the northern end of the Nyalga Basin (Behre Dolbear, 2007). Red Hill explored its Chandgana Tal Coal Project in the same area during the summer of 2007 under exploration license 7101X and mining licence 10126A. Eight core holes were drilled the results of which are more fully described by Behre Dolbear (2007). There is previous and current mining at the Chandgana Coal Mine on the portion owned by Berkh-Uul (Map 1). There has been no mineral or petroleum exploration in the Nyalga Basin to the best of my knowledge.

8 GEOLOGICAL SETTING

The resource area is located in a region of folded sedimentary rocks where igneous and metamorphic rocks are uncommon. Rock deformation consists mostly of folds with several long large-displacement normal faults.

8.1 Regional Geology

The resource area is located in the Nyalga Basin which is a portion of the Khentii Zone of the Khangai-Khentii fold system. The Khangai-Khentii fold system is a series of folded Silurian to Permian age sedimentary rocks found in eastern Mongolia (Behre Dolbear, 2007).

8.1.1 Surficial Deposits and Sedimentary Rocks

Surficial deposits appear to be Holocene in age and include alluvium, colluvium, and playa deposits (Map 3) and are up to 70 m thick. Subsurface rocks range in age from Silurian to Cretaceous and include nonmarine sand, clay, conglomerate, sandstone, siltstone, shale, and coal (Figure 2). A minimum thickness of 3,350 m of sedimentary rocks are known of which only the upper 285 m of the Zuunbayan Formation was penetrated in the 2007 drilling. The units are described in more detail as follows (Orehov et al., 1962):

Holocene: Holocene age surficial deposits include sands, silts, clays and talus found in lake, playa, alluvial, and mass wasting environments. These sediments are not lithified though some are poorly lithified by evaporite mineral cementation. The total thickness of these deposits varies from 60 to 70 m and rest in angular unconformity on the rocks below.

Tertiary: The Tertiary is represented by sediments including arkosic sands, greywacke-type red clays, and gravels, all of which are poorly to moderately lithified, and basalt at the top. Total thickness is estimated to be 50 m.

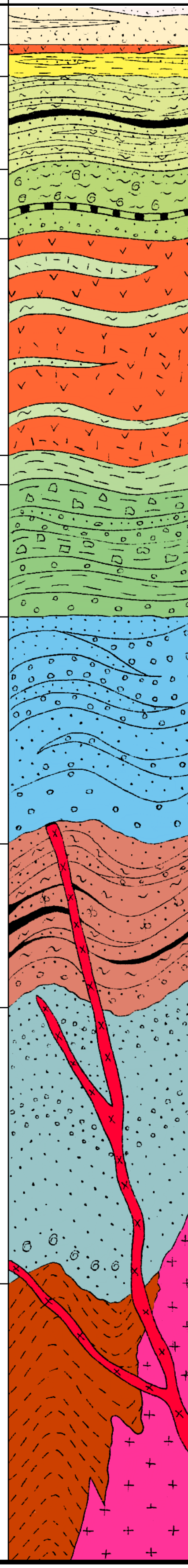
Lower Cretaceous: Lower Cretaceous rocks are found in three formations including the Zuunbayan Formation, Tsagantsav Formation, and Sharil Formation.

Zuunbayan Formation: This formation consists of two informal members based on lithology. The upper member consists of alternating shale, clay, siltstone, conglomerate, and up to five coal seams. This member is up to 220 m thick. The lower member consists of shale, siltstone, and conglomerate with bituminous schist at the base. This member varies from 170 to 250 m thick. Both members are only moderately lithified.

Tsagantsav Formation: The Tsagantsav Formation consists of extrusive volcanic rocks (basalt, andesite-basalt, andesite, quartz porphyry, and tuff) interbedded with black clayey schist and gray sandstones. The total thickness of this formation is approximately 500 m.

Sharil Formation: This formation consists of two informal members. The upper member consists of dark brown soapy clay and is estimated to be 50 to 100 m thick. The lower member consists of variegated clays, sandstones, and conglomerates with a total thickness of approximately 300 m.

Lower Jurassic: Jurassic age rocks are present in an unnamed unit ranging in lithology from interbedded sandstone and conglomerate to gravellite. This unit is found in angular unconformity to the Permian age rocks below. The thickness is estimated to be 700 m.



ERATHEM	SYSTEM	STRATIGRAPHIC UNIT		LITHOLOGY	THICKNESS	LITHOLOGIC DESCRIPTION
CEN.	Quaternary	Alluvium			60-70 m	Sandy alluvium, colluvium, and playa
CEN.	Tertiary	Red Clay			50 m	Red clay with sand; capped with basalt
MESOZOIC	Cretaceous	Zuunbayan Fm.	Greenish-Gray Mbr.		220 m	Interbedded poorly consolidated sand, clay, silt and gravel conglomerates with one or more major coal seams
MESOZOIC	Cretaceous	Zuunbayan Fm.	Dark Gray Mbr.		170-250 m	Shale and siltstone with conglomerate and bitumenous schist at base
MESOZOIC	Cretaceous	Tsagantsav Fm.			500 m	Basalts, andesitic basalts, quartz porphyry, quartz tuffs, interbedded with black clayey schists and gray sandstones
MESOZOIC	Cretaceous	Shariin Fm.	Upper Mbr.		50-100 m	Dark brown soapy clay
MESOZOIC	Cretaceous	Shariin Fm.	Lower Mbr.		300 m	Interbedded variegated color clays, sandstones, and conglomerates
MESOZOIC	Jurassic	Sandstone & Conglomerate			700 m	Interbedded coarse-grained sandstone with conglomerate and gravellite.
PALEOZOIC	Permian	Productive Fm.			400 m	Interbedded sandstone and sandy shales, with several thin coal seams of variable thickness; some floral remains
PALEOZOIC	Carbonif-erous	Graywacke			750 m	Arkosic sandstone and graywacke with conglomeratic layers; Carboniferous faunas are present in the lower horizons
PALEOZOIC	Silurian-Devonian	Phyllitic Schist			900 m	Greenish-gray, quartz-feldspar-chlorite, quartz-sericite and chlorite schists; rare porphyrites and associated tuffs

Source: Orehov et al., 1962.

Figure 2. Stratigraphic Column

Permian: The Permian age rocks are found in the Productive Formation. This unit includes alternating light gray arkosic sandstone and gray fossiliferous sandy and clayey siltstone and shale with three thin coal seams. This unit is approximately 400 m thick.

Carboniferous to Lower Permian undifferentiated: This informal unit includes yellow conglomerate, bitumen-containing argillite, limestone and loam, and gray-green arkosic sandstone. The compositions of the clasts in the conglomerates include igneous, metamorphic, and sedimentary rocks along with quartz and jasper. This unit is approximately 750 m thick.

Silurian to Devonian undifferentiated: This is an unnamed unit consisting of greenish-gray, quartz-feldspar-chlorite, quartz-sericite and chlorite schists as well as rare porphyrites and their associated tuffs. The thickness of this unit is estimated at 900 m.

8.1.2 Igneous and Metamorphic Rocks

The igneous rocks include granite and granodiorite that are part of a batholith. The granite has a pink colour with large biotite crystals. There is a sharp contact between these two rocks. The metamorphic rocks include schists, porphyrites and their tuffs. Rubble from these rocks is found in the Permian and Jurassic conglomerates. These rocks are considered to be Late Silurian to Early Devonian in age (Figure 2).

8.1.3 Structural Geology

The Chandgana Khavtgai Coal Resource Area is located in the Khentii Zone of the Khangai-Khentii fold system and east of the Nyalga Depression. The Khangai-Khentii fold system is relatively simple consisting of large, low amplitude folds of sedimentary rocks above more resistant older sedimentary and igneous rocks. There are several long large-displacement normal faults.

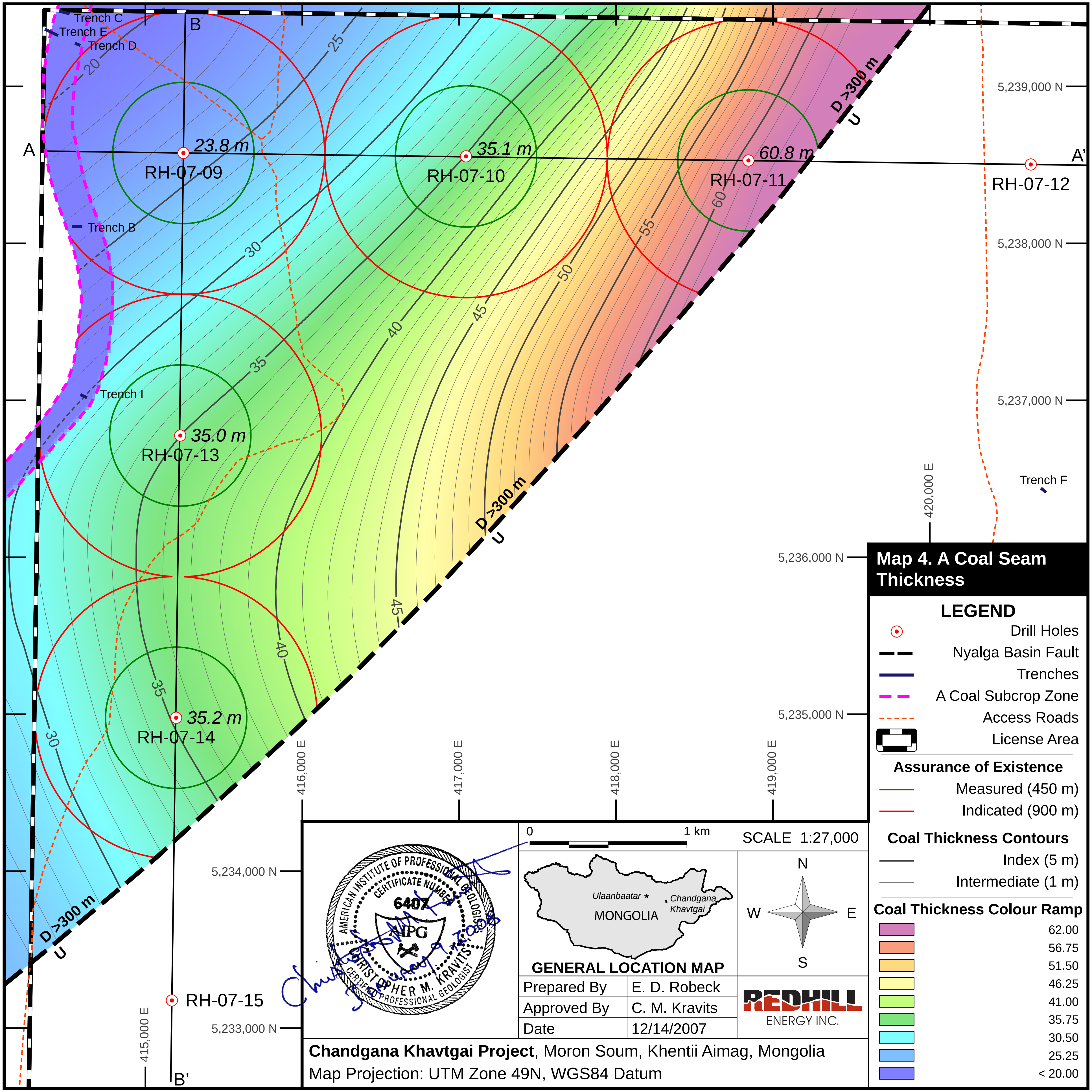
8.2 Resource Area Geology

Unconsolidated Holocene age sediments are found at the surface. The rocks found immediately below the surficial deposits belong to the nonmarine Early Cretaceous Zuunbayan Formation. The coal resource is found in the coal seams of the Zuunbayan Formation. Igneous dikes and sills have not been found to cut the Zuunbayan Formation.

8.2.1 Surficial Deposits and Sedimentary Rocks

Holocene: This surface unit consists of a variety of subunits including coarse-grained sandy loam with schist, granite, and quartz clasts, silt, pebble gravels, thin salt crusts, and residuum found in ephemeral stream beds and playas, mass wasted slopes and as debris remaining after weathering of bedrock (Map 3). These sediments are generally not lithified, but in some areas they are poorly lithified by evaporite minerals forming a sort of caliche. The aggregate thickness of these units varies from 0 to 7 m. The geologic map is based on surface mapping and interpretation of satellite imagery accessed from Google Earth™ (Google Earth, 2007). No bedrock is exposed.

Lower Cretaceous: The upper member of the Zuunbayan Formation is found below the surficial deposits and varies from 200-220 m thick. This member consists of alternating shale, clay, siltstone, sandstone, and coal. The A Coal Seam is the thickest coal seam (average 35 m thick) and has the greatest areal extent (Map 4). Drill hole RH-07-09 was


Map 4. A Coal Seam Thickness
LEGEND
Drill Holes
Nyalga Basin Fault
Trenches
A Coal Subcrop Zone
Access Roads
License Area
Assurance of Existence
Measured (450 m)
Indicated (900 m)
Coal Thickness Contours
Index (5 m)
Intermediate (1 m)
Coal Thickness Colour Ramp
62.00
56.75
51.50
46.25
41.00
35.75
30.50
25.25
< 20.00
Trench C
Trench E
Trench D
Trench B
Trench I
Trench F
A
A'
B
B'
23.8 m
RH-07-09
35.1 m
RH-07-10
60.8 m
RH-07-11
RH-07-12
35.0 m
RH-07-13
35.2 m
RH-07-14
RH-07-15
D >300 m
U
20
25
30
35
40
45
50
55
60
5,239,000 N
5,238,000 N
5,237,000 N
5,236,000 N
5,235,000 N
5,234,000 N
5,233,000 N
415,000 E
416,000 E
417,000 E
418,000 E
419,000 E
420,000 E
0
1 km
SCALE 1:27,000
N
W
E
S
Ulaanbaatar
Chandgana Khavtgai
MONGOLIA
GENERAL LOCATION MAP
Prepared By
E. D. Robeck
Approved By
C. M. Kravits
Date
12/14/2007
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Map Projection: UTM Zone 49N, WGS84 Datum

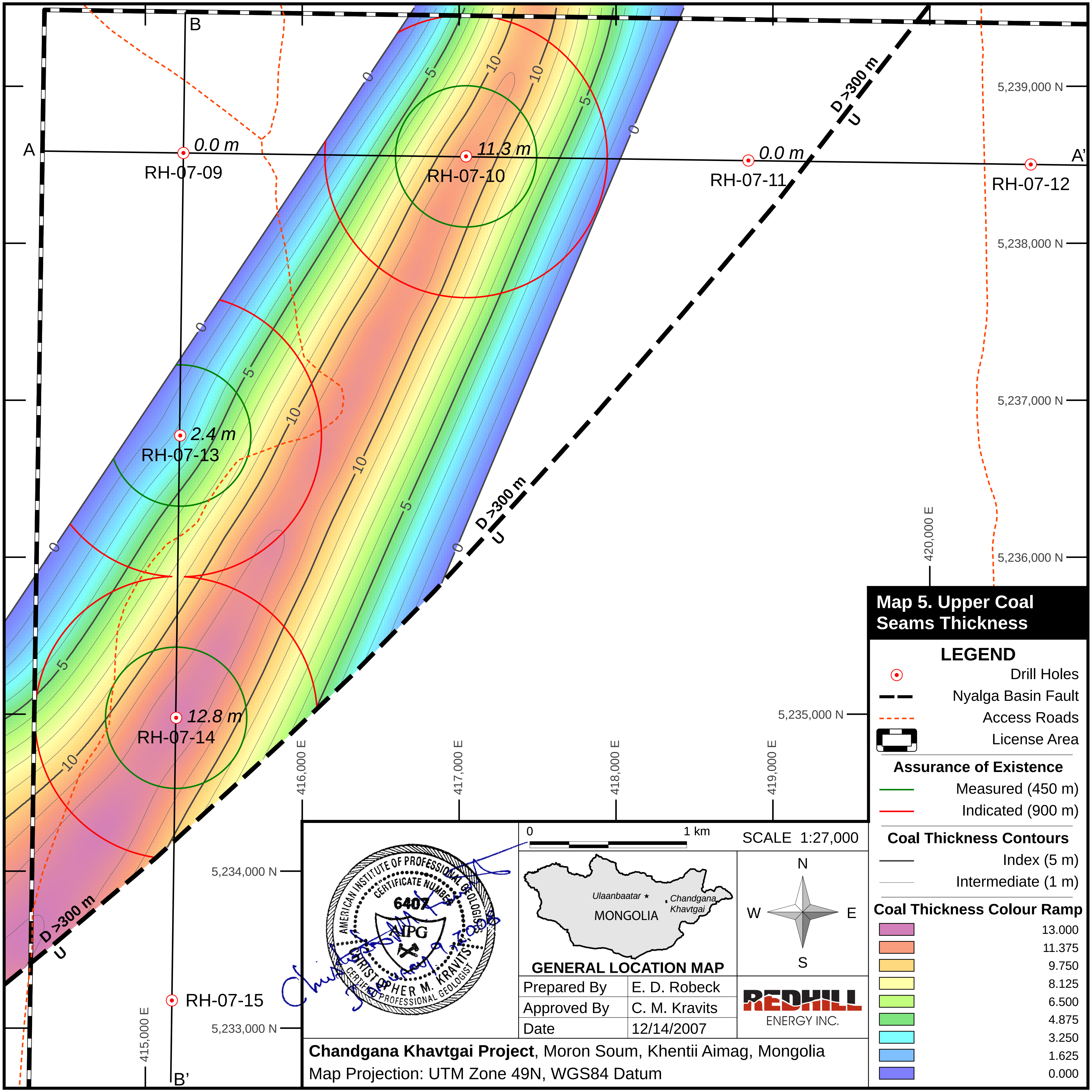
drilled as a stratigraphic test and found no thick coal seams to a depth of 50 m below the A Coal Seam. There are other coal seams found in two higher stratigraphic intervals. These coal seams vary in thickness from 0 to 4.5 m thick with an aggregate thickness up to 12.8 m but have a limited areal extent (Map 5). These rocks are poorly to moderately lithified and readily air slack.

Coal burn (coal burned in-place and the associated altered rocks above) has not been found in the resource area.

8.2.2 Structural Geology

The coal resources are found within the southern end of the Nyalga Basin, which appears to be the headwall portion of a faulted syncline (Figures 3 and 4). The coal seams subcrop along the western margin of the faulted syncline, strike from N 5° to 45°E, and dip approximately 3° to the southeast (Map 6). The normal fault bounding the basin is called the Nyalga Basin Fault. The exact location and character of this fault is not known. The location has been approximated using the apparent slight topographic expression, the azimuth of topographic contours, and the change in lithology of the portion of the Zuunbayan Formation penetrated in drill holes on either side of the fault. This appears to be a normal dip slip fault where the northwest block has moved down, the fault plane dips to the northwest, and displacement is approximately 300 m. At this time it is not known whether the Nyalga Basin Fault is a growth fault or a tectonic fault. A growth fault could be suspected because the A Coal Seam increases in thickness toward the fault, the thicker coal parallels the fault, and no indications suggestive of a tectonic fault have been found from surface mapping. But a tectonic fault active during deposition could produce similar depositional features and is further suggested by an apparent slight topographic expression and the structural history of the area.

Mass wasting that may affect the reliability of the coal resource estimate or impact coal recoverability has not been found.



Map 5. Upper Coal Seams Thickness
LEGEND
Drill Holes
Nyalga Basin Fault
Access Roads
License Area
Assurance of Existence
Measured (450 m)
Indicated (900 m)
Coal Thickness Contours
Index (5 m)
Intermediate (1 m)
Coal Thickness Colour Ramp
13.000
11.375
9.750
8.125
6.500
4.875
3.250
1.625
0.000
A
A'
B
B'
RH-07-09 0.0 m
RH-07-10 11.3 m
RH-07-11 0.0 m
RH-07-12
RH-07-13 2.4 m
RH-07-14 12.8 m
RH-07-15
D >300 m
U
5,239,000 N
5,238,000 N
5,237,000 N
5,236,000 N
5,235,000 N
5,234,000 N
5,233,000 N
415,000 E
416,000 E
417,000 E
418,000 E
419,000 E
420,000 E
0
1 km
SCALE 1:27,000
Ulaanbaatar
Chandgana Khavtgai
MONGOLIA
GENERAL LOCATION MAP
N
S
E
W
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REDHILL ENERGY INC.
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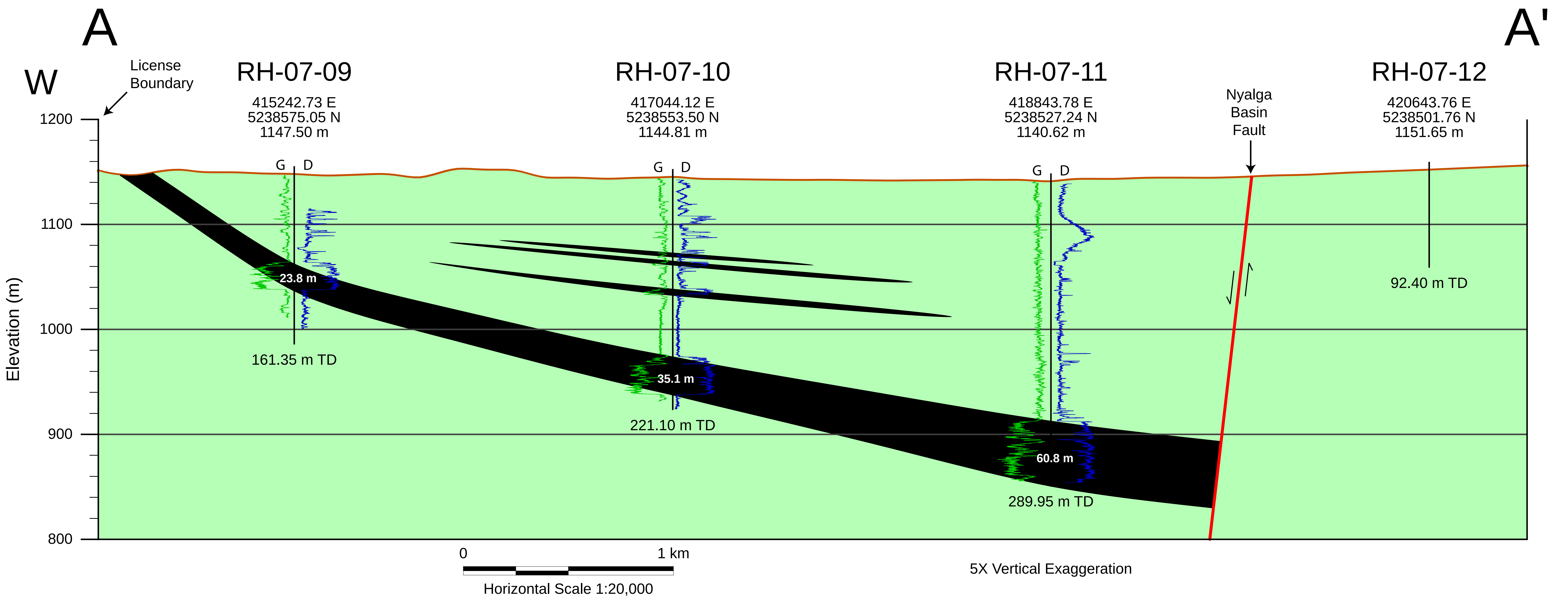


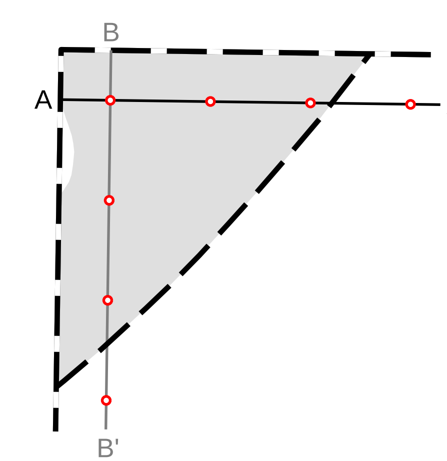


Figure 3. Cross Section A-A'

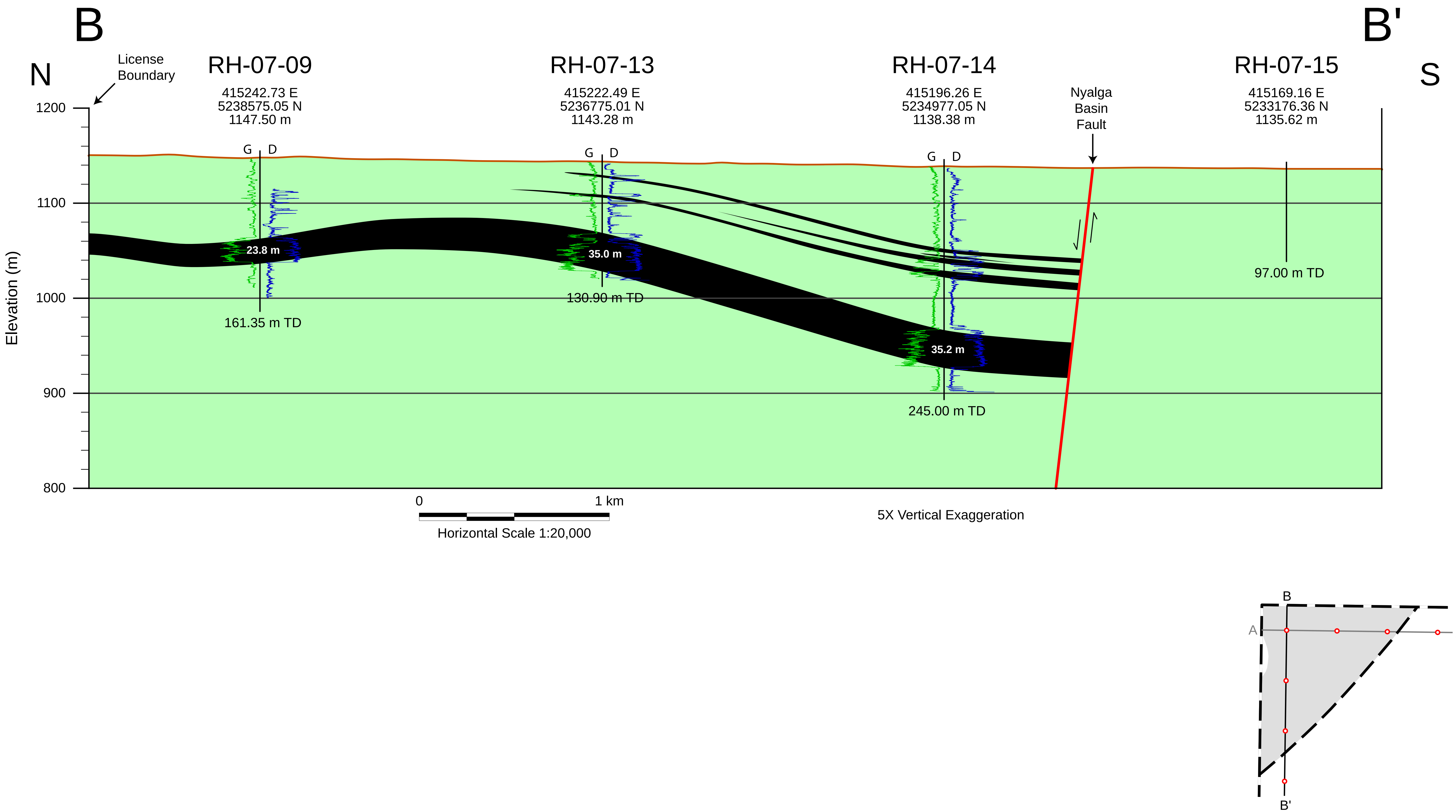
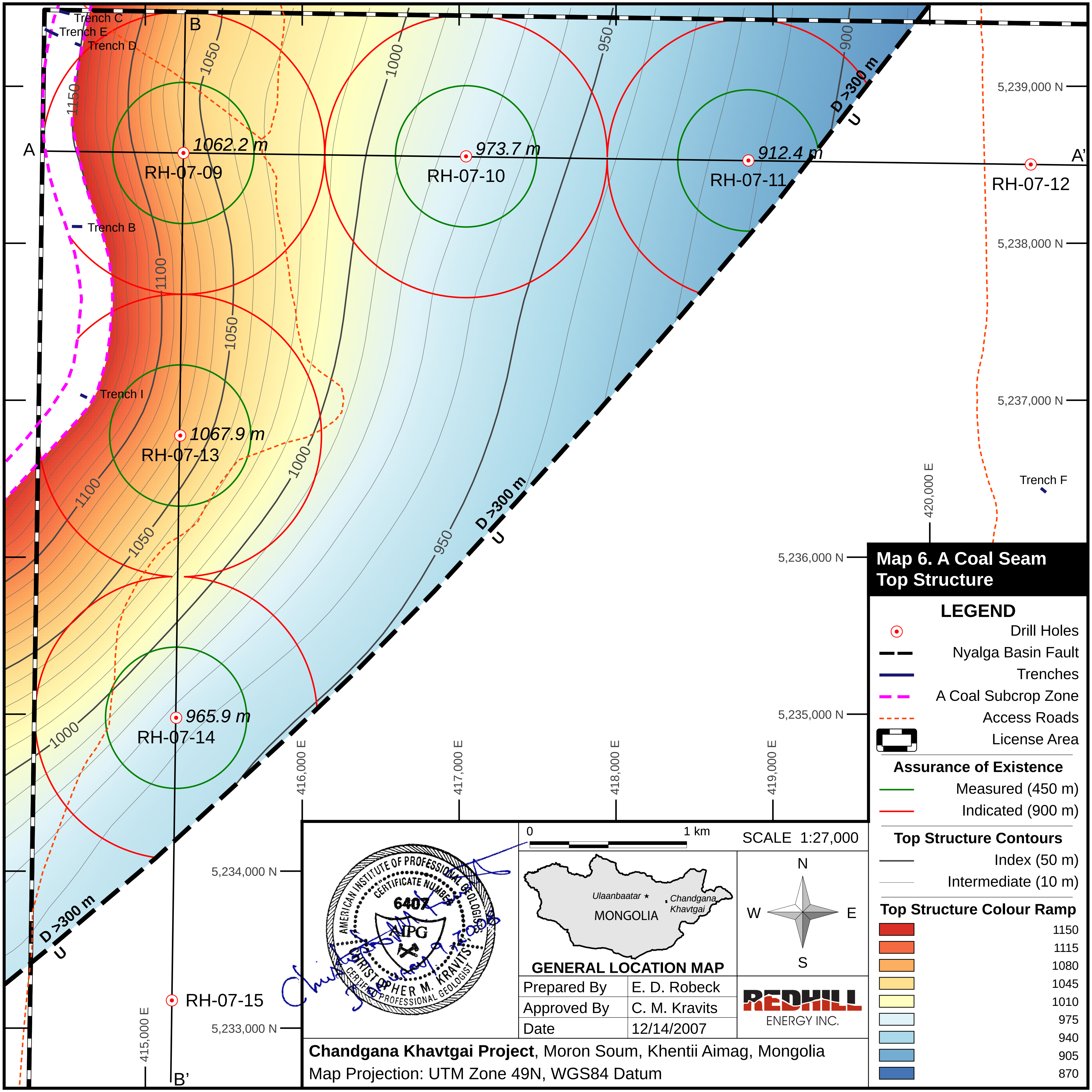


Figure 4. Cross Section B-B'


Map 6. A Coal Seam Top Structure
LEGEND
Drill Holes
Nyalga Basin Fault
Trenches
A Coal Subcrop Zone
Access Roads
License Area
Assurance of Existence
Measured (450 m)
Indicated (900 m)
Top Structure Contours
Index (50 m)
Intermediate (10 m)
Top Structure Colour Ramp
1150
1115
1080
1045
1010
975
940
905
870
RH-07-09
1062.2 m
RH-07-10
973.7 m
RH-07-11
912.4 m
RH-07-12
RH-07-13
1067.9 m
RH-07-14
965.9 m
RH-07-15
Trench C
Trench E
Trench D
Trench B
Trench I
Trench F
D >300 m
U
5,239,000 N
5,238,000 N
5,237,000 N
5,236,000 N
5,235,000 N
5,234,000 N
5,233,000 N
415,000 E
416,000 E
417,000 E
418,000 E
419,000 E
420,000 E
0
1 km
SCALE 1:27,000
N
S
W
E
Ulaanbaatar
Chandgana Khavtgai
MONGOLIA
GENERAL LOCATION MAP
Prepared By E. D. Robeck
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9 DEPOSIT TYPES

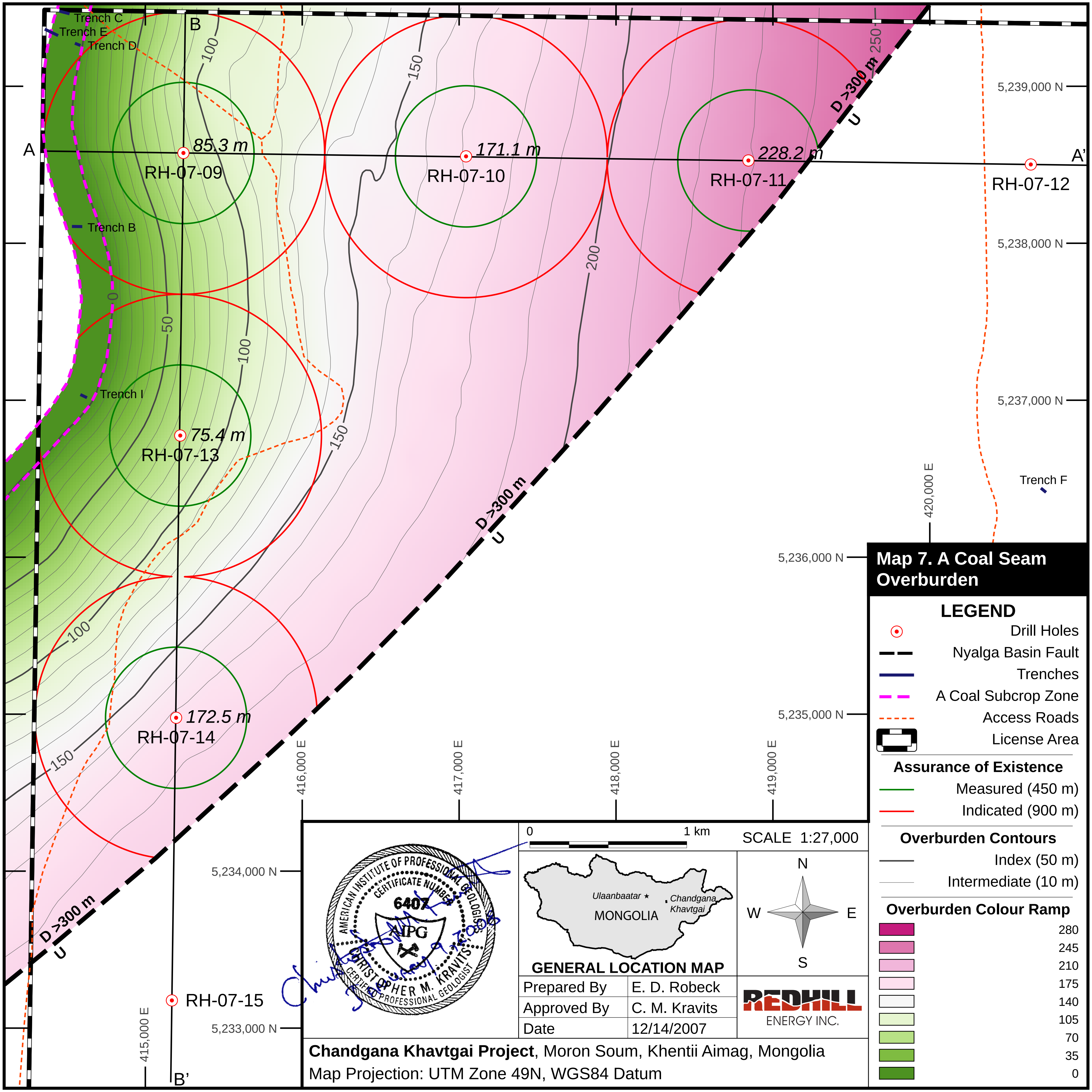
The deposit consists of thick coal seams found over a large area within gently dipping sedimentary rocks. The coal is of moderate grade and low rank.

9.1 Determination

The coal seams in the Chandgana Khavtgai Coal Resource Area are mostly amenable to surface mining methods thus the resource area is considered a surface type deposit. This is because (1) the coal seams lie under low to moderate overburden ranging from 0 to 260 m (Map 7), (2) the coal seams are thick with the A Coal Seam ranging from 23 to 61 m thick (Map 4) and the aggregate thickness of the upper coal seams ranging from 0 to 12.8 m (Map 5), (3) the in-place strip ratio averages 1.9:1, reaching a maximum of 3.6:1 (Map 8), (4) the overburden rocks and the coal seams are relatively weak, and (5) the coal seams have a relatively low average heating value of 3,800 kcal/kg on the as-received basis (Table 2). It is recognised that the thicker overburden exceeds that removed in many surface mines around the world and so detracts somewhat from the surface type deposit determination. But with such a low strip ratio and higher mineable coal seams, it is thought that these depths could be reached by reducing the highwall angle. Further, underground mining methods may be possible beyond approximately 100 m depth but the thickness of the coal seams and the weakness of the rocks and coal make underground methods even less likely. This resource area has not been considered for unconventional energy recovery methods (e.g., underground coal gasification) because comparative information could not be obtained in time.

9.2 Geologic Model

Since there was minimal information on the resource area and no previous drilling, the 2007 exploration plan was developed without a geological model. The exploration plan was that commonly used for stratiform deposits where obtaining basic information on the stratigraphy, coal seams (depth, thickness and grade) and structure was desired. This information would be used in estimating resources and grade and in developing a geologic model. Following the exploration, a preliminary geological model is now in development. At this time it appears that the resource area was part of a rapidly filling continental intermontane basin. Deposition kept pace with displacement of the Nyalga Basin Fault such that water level in the mire allowed plant growth and preservation of plant debris over long periods. Such a model would result in thick coal seams with few partings having a large areal extent and low sulphur content. It is not known at this time whether the Nyalga Basin Fault is a growth fault (faulting is induced by sedimentary loading) or a tectonic fault as discussed in Subsection 8.2.2. The exploration plan for 2008 will be guided by this developing model such that it includes improved logging and sampling methods and better characterisation of the Nyalga Basin Fault, coal seam subcrop, and partings.


Map 7. A Coal Seam Overburden
LEGEND
Drill Holes
Nyalga Basin Fault
Trenches
A Coal Subcrop Zone
Access Roads
License Area
Assurance of Existence
Measured (450 m)
Indicated (900 m)
Overburden Contours
Index (50 m)
Intermediate (10 m)
Overburden Colour Ramp
280
245
210
175
140
105
70
35
0
RH-07-09
85.3 m
RH-07-10
171.1 m
RH-07-11
228.2 m
RH-07-12
RH-07-13
75.4 m
RH-07-14
172.5 m
RH-07-15
Trench C
Trench E
Trench D
Trench B
Trench I
Trench F
A
A'
B
B'
D >300 m
U
5,239,000 N
5,238,000 N
5,237,000 N
5,236,000 N
5,235,000 N
5,234,000 N
5,233,000 N
415,000 E
416,000 E
417,000 E
418,000 E
419,000 E
420,000 E
0
1 km
SCALE 1:27,000
N
S
W
E
Ulaanbaatar
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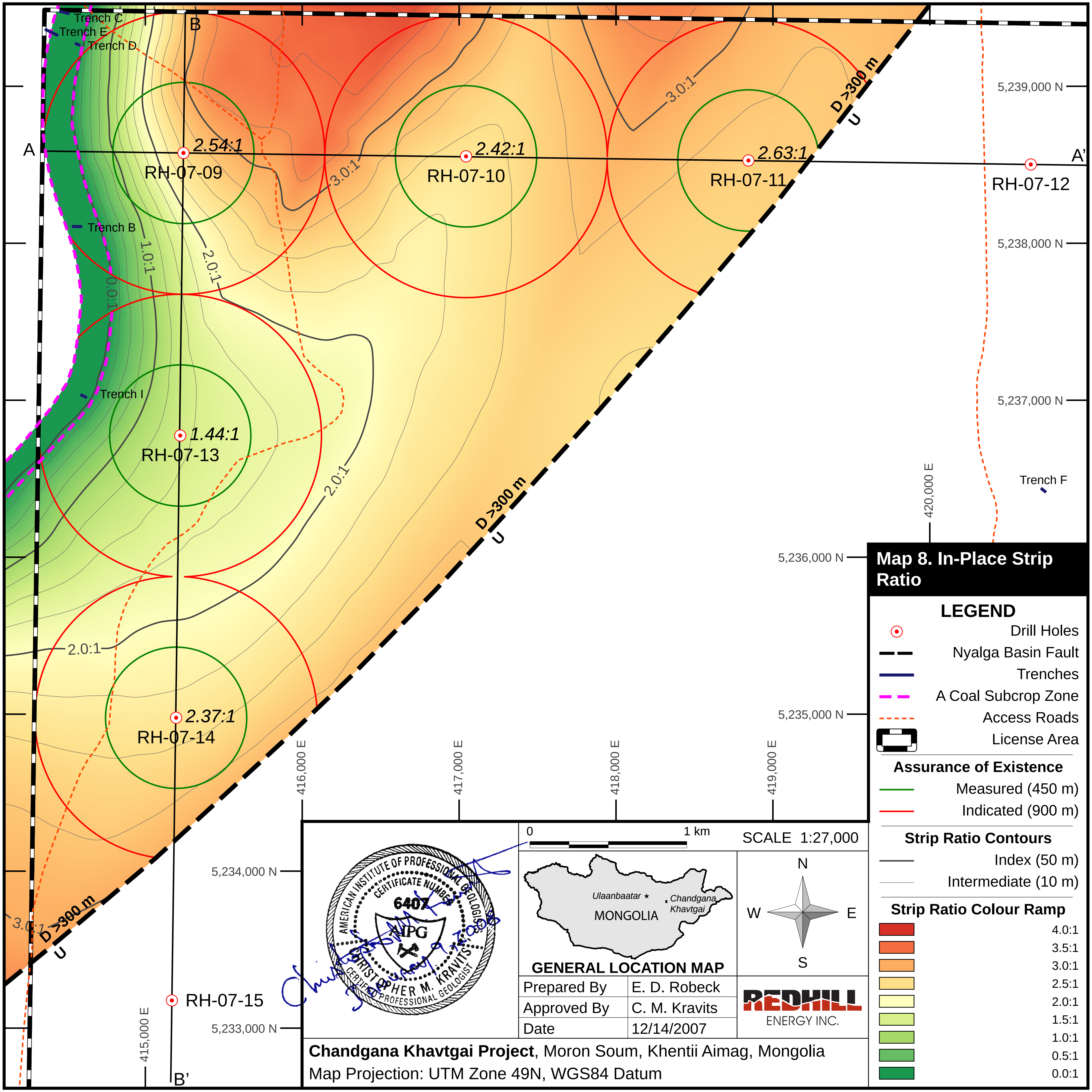
Map 8. In-Place Strip Ratio
LEGEND
Drill Holes
Nyalga Basin Fault
Trenches
A Coal Subcrop Zone
Access Roads
License Area
Assurance of Existence
Measured (450 m)
Indicated (900 m)
Strip Ratio Contours
Index (50 m)
Intermediate (10 m)
Strip Ratio Colour Ramp
4.0:1
3.5:1
3.0:1
2.5:1
2.0:1
1.5:1
1.0:1
0.5:1
0.0:1
Trench C
Trench E
Trench D
Trench B
Trench I
Trench F
A
A'
B
B'
RH-07-09
2.54:1
RH-07-10
2.42:1
RH-07-11
2.63:1
RH-07-12
RH-07-13
1.44:1
RH-07-14
2.37:1
RH-07-15
3.0:1
2.0:1
1.0:1
0.0:1
D >300 m
U
5,239,000 N
5,238,000 N
5,237,000 N
5,236,000 N
5,235,000 N
5,234,000 N
5,233,000 N
415,000 E
416,000 E
417,000 E
418,000 E
419,000 E
420,000 E
0
1 km
SCALE 1:27,000
N
S
E
W
Ulaanbaatar
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A COAL SEAM Average In-Place Coal Quality			
Parameters/Units	**Analysis Basis**		
Proximate Analysis	**As-Received**	**Air-Dried**	**Dry**
Moisture (wt. %)	35.12	25.58	-
Ash (wt. %)	9.01	10.34	13.89
Volatile Matter (wt. %)	29.48	33.81	45.43
Fixed Carbon (wt. %)	26.39	30.27	40.68
Heating Value (kcal/kg)	3,799	4,358	5,855
Heating Value (Btu/lb)	6,838	7,844	10,540
Sulphur (wt. %)	0.46	0.53	0.71
Ultimate Analysis (coal only)	**As-Received**	**Air-Dried**	**Dry**
Carbon (wt. %)	40.98	47.01	63.16
Hydrogen (wt. %)	2.50	2.87	3.85
Nitrogen (wt. %)	0.39	0.45	0.61
Oxygen (wt. %)	45.22	38.81	21.62
Chlorine (wt. %)	0.02	0.02	0.03
Ash Analysis	**Ignited Basis**		
SiO_2 (wt. %)	43.48		
Al_2O_3 (wt. %)	16.22		
TiO_2 (wt. %)	0.73		
Fe_2O_3 (wt. %)	12.46		
CaO (wt. %)	11.08		
MgO (wt. %)	2.48		
K_2O (wt. %)	0.90		
Na_2O (wt. %)	1.91		
Mn_3O_4 (wt. %)	0.40		
SO_3 (wt. %)	8.36		
P_2O_5 (wt. %)	0.06		
SrO (wt. %)	0.02		
BaO (wt. %)	0.11		
ZnO (wt. %)	0.02		
Undet. (wt. %)	1.77		
Total	100.00		
Ash Fusion Temperatures	**Reducing Atm.**	**Oxidizing Atm.**	
Initial Deformation (^oC)	1145	1215	
Softening (^oC)	1156	1225	
Hemispherical (^oC)	1165	1234	
Fluid (^oC)	1197	1263	
Other Analyses	**Value**		
Hardgrove Grindability Index	30		
Relative Density (as-received, g/cm^3)	1.43		
Combustion Loadings	**Value**		
Ash (kg/Mkcal)	1,509		
Sulphur Dioxide (kg/Mkcal)	154		

Table 2

10 MINERALISATION

Mineralisation is interpreted as the physical character of the coal seams, their contained partings, interburden between coal seams, and the overburden as well as the grade and rank of the coal.

10.1 Definitions and Parameters

Where discussed in this section, coal seam refers to the total thickness of all coal plies and intervening partings forming a stratigraphic interval determined by the authors to represent a coal depositional period. Coal seams are usually separated from other coal seams by rocks representing extensive non-coal depositional environments such as fluvial systems or marine transgressions.

A minimum coal ply thickness of 0.5 m and maximum parting thickness of 0.3 m were used as limits when selecting samples for inclusion in composite samples to be analyzed. These limits were used to approximate the quality of coal seams at the resource level and so differ slightly from that used in estimating coal resources described in Subsection 18.2.2.

10.2 Coal Seam Character and Surrounding Rocks

The coal seams are found in the upper member of the early Cretaceous Zuubayan Formation. There is one major coal seam and thinner coal seams found in two higher stratigraphic intervals. The coal seams and surrounding rocks are described below.

> **A Coal Seam:** The A Coal Seam is apparently the stratigraphically lowest coal seam and has an average thickness of 38.0 m and varies from 23.8 m to 60.8 m. This coal seam is found throughout the resource area and accounts for most (about 90%) of the coal resource. There may be as many as five partings that may be up to 3.1 m thick and composed of bone coal, carbonaceous shale or mudstone, and sandstone. At least one of the partings appears to be a tonstein, a thin layer of volcanic ash deposited in the mire. The partings are easily correlated because of the pattern of intervals between partings and the character of the partings. The A Coal Seam noticeably thickens toward the Nyalga Basin Fault. This is apparently the lowest major coal seam because drill hole RH-07-09 was drilled 50 m below the A Coal Seam and encountered no coal thicker than 0.5 m.

The interburden between the A Coal Seam and the stratigraphically higher upper coal seams varies from 33 m to 60 m and is generally composed of siltstones and shales with thin sandstones. A sandstone unit 33 to 44 m thick is found in two drill holes where its base is approximately two metres above the A Coal Seam.

> **Upper Coal Seams:** Thinner unnamed coal seams are found in two intervals above the A Coal Seam. The aggregate thickness of these upper coal seams averages 5.3 m and varies from 0 m to 12.8 m. The upper coal seams contain from one to two partings that vary from 0.1 to 0.6 m thick. The partings are usually composed of bone coal, shale, or siltstone. The upper coal seams have a limited areal extent. They occur in an approximately 2 km wide band trending northeast-southwest and subparallel to the Nyalga Basin Fault. These coal seams are included in the resource estimate where they meet the guidelines of Geological Survey of Canada Paper 88-21 and are considered mineable by surface mining methods.

The interburden between the unnamed coal seams varies from 3 m to 22 m thick and is generally composed of shale, siltstone, and sandstone.

10.3 Coal Description, Grade and Rank

The only coal seam observed and sampled in a fresh condition is the A Coal Seam. This coal seam is black with a slight shade of brown when wet, becomes browner when drying, but then becomes black when dry. This coal seam is mostly moderately dull to dull and is mostly composed of dull clarain with occasional durain and fusain. The fusain is often sufficiently thick and extensive to make for a plane of weakness. Vitrain and secondary resin are not common. The coal has a fibrous texture and occasionally discernable plant debris is found. Pyrite is not common and when found occurs as discrete grains and thin lenses. Cleat and fracture filling is not known. No detailed lithotype descriptions or petrographic analyses have been performed on the coal seams. The unnamed coal seams are considered to have a generally similar lithologic composition because they appear to have been deposited in a similar environment and undergone a similar burial and deformational history.

The A Coal Seam is a medium grade coal. The average as-received quality based on the drill hole composites is 35.1% moisture, 9.0% ash, 3,800 kcal/kg heating value, and 0.5% sulphur (Table 2). This quality does not fully represent the intervals in the resource estimate because of two errors. The errors were discovered after the composite analyses were completed and are that the thickness criteria used to determine the coal and partings to be included in the composite differed slightly from that used in resource estimation and the laboratory incorrectly determined the amount of each sample to be included in the composite sample. The average quality reported in the table is a weighted average quality calculated by weighting the analytical values of each composite according to the proportion of the thickness of the interval represented by the composite to the total thickness of all the composite intervals. The difference is slight but it must be kept in mind that the composites then do not fully represent the quality of the coal resource. The analyses of the individual samples are in Table 3 and the full-seam composites are given in Table 4. The coal samples were not analyzed for trace metals, hazardous air pollutants, or radionuclides nor tested for handling characteristics, other types of utilisation, or suitability to various conversion processes.

The analyses of the trench samples are generally within the range of that of the core samples. But, the decreased dry ash-free heating value indicates that the coal from these locations has undergone varying degrees of weathering. These samples were not used in determining grade and rank because they only represent a small portion of the A Coal Seam and vary in the degree of weathering. Other analyses are needed to better determine the degree of weathering. Analyses of the trench samples are given in Table 5.

The A Coal Seam has a moderate ash and sulphur dioxide loading when considered as a thermal coal. Comparison to United States power industry rules of thumb, the ash loading of 1,509 kg/Mkcal (13.2 lbs/MMBtu) is moderate. The sulphur dioxide loading of 154 kg/Mkcal (1.35 lbs/MMBtu) is moderate in that it slightly exceeds the 1.2 lbs/MMBtu limit now required by power plants in the United States.

The A Coal Seam has a moist, mineral matter-free heating value of 8,715 Btu/lb which classifies it as an apparent subbituminous C rank (ASTM D388). The ISO rank could not be determined because other analyses are needed. This is a low rank for coal of this geologic age. The low rank suggests that the coal seams were either not buried deep enough, buried long enough, or the geothermal gradient is low in this area. The poor to moderate lithification of the enclosing rocks also suggests shallow and/or short term burial.

A COAL SEAM DRILL HOLE SAMPLE ANALYSES

Drill Hole ID	Sample Number	Drilled Depth (metres)		Total Moisture (arb) (wt. %)	Proximate Analysis				Other Analyses			
		From	To		Inherent Moisture (ad) (wt. %)	Ash (ad) (wt. %)	Volatile Matter (ad) (wt. %)	Fixed Carbon (ad) (wt. %)	Total Sulphur (ad) (wt. %)	Heating Value (ad) (Btu/lb)	Heating Value (ad) (MJ/Kg)	Heating Value (ad) (kcal/kg)
RH-07-09	1/1	89.00	90.50	35.36	19.63	12.44	31.83	36.10	1.97	8,333	19.383	4,630
	1/2	90.50	92.70	36.46	23.80	9.21	30.13	36.86	0.75	8,133	18.917	4,518
	1/3	92.70	95.70	37.72	25.21	10.65	31.75	32.40	0.48	7,845	18.247	4,358
	1/4	95.70	98.70	37.73	23.27	13.25	36.01	27.46	0.47	7,669	17.839	4,261
	1/5	98.70	101.70	35.81	22.01	15.22	32.27	30.50	0.48	7,605	17.690	4,225
	1/6	101.70	104.70	38.28	21.13	14.98	29.74	34.15	0.41	7,700	17.910	4,278
	1/7	104.70	107.70	39.88	23.59	6.82	30.80	38.79	0.31	8,522	19.823	4,735
	1/8	107.70	110.70	39.14	25.51	6.28	31.68	36.53	0.36	8,466	19.691	4,703
	1/9	110.70	111.60	39.04	25.69	10.05	15.49	48.78	0.34	7,888	18.348	4,382
	2/9	111.60	111.80	14.39	3.86	88.54	6.51	1.09	0.10	368	0.856	204
RH-07-10	3/24	171.35	171.55	19.80	10.73	74.43	10.77	4.07	0.48	886	2.061	492
	4/24	171.55	173.10	29.10	19.57	23.54	27.22	29.67	1.88	6,788	15.788	3,771
	1/25,1/26	173.10	176.42	30.88	20.71	17.42	29.45	32.42	1.84	7,520	17.491	4,178
	2/26	176.42	177.14	17.92	8.31	69.77	14.32	7.60	0.82	1,724	4.009	958
	3/26	177.14	179.10	30.87	18.90	21.06	28.82	31.21	1.37	7,358	17.115	4,088
	1/27	179.10	182.10	35.30	22.58	8.28	32.09	37.05	1.16	8,724	20.293	4,847
	1/28	182.10	185.10	34.66	20.00	9.67	32.14	38.19	1.21	8,828	20.534	4,904
	1/29	185.10	188.10	34.86	21.47	9.45	32.02	37.07	0.58	8,534	19.849	4,741
	1/30	188.10	191.10	33.66	20.72	11.52	20.46	47.30	0.36	8,350	19.423	4,639
	1/31	191.10	194.10	35.08	14.51	10.81	34.18	40.50	0.50	9,205	21.410	5,114
	1/32	194.10	197.10	33.57	18.25	12.48	31.69	37.58	0.39	8,521	19.819	4,734
	1/33	197.10	200.10	35.28	20.25	7.94	32.10	39.71	0.28	8,907	20.717	4,948
	1/34	200.10	203.10	37.77	18.23	6.59	33.75	41.43	0.25	9,399	21.863	5,222
	1/35	203.10	206.10	35.66	16.34	8.28	34.41	40.97	0.29	9,343	21.731	5,190
	1/36	206.10	206.75	29.23	18.74	21.81	28.70	30.75	0.55	7,100	16.514	3,944
	2/36	206.75	206.95	5.76	2.72	87.00	7.87	2.41	0.13	669	1.556	372
RH-07-11	1/1,1/2	231.80	235.40	31.01	19.82	7.94	36.16	36.09	0.35	8,840	20.562	4,911
	1/3	235.40	238.40	30.57	17.73	11.93	33.39	36.95	0.42	8,561	19.914	4,756
	1/4	238.40	241.40	30.84	18.72	13.32	31.81	36.15	0.38	8,194	19.060	4,552
	1/5,1/6	241.40	244.70	33.64	19.86	6.66	35.52	37.97	0.27	9,072	21.101	5,040
	2/6	244.70	245.25	10.08	1.08	92.63	5.95	0.35	0.01	57	0.132	32
	3/6	245.25	247.40	28.22	16.21	28.42	29.77	25.59	0.40	6,231	14.494	3,462
	1/7	247.40	250.40	29.15	18.79	13.77	31.53	35.92	0.54	8,246	19.181	4,581
	1/8	250.40	253.40	33.15	21.30	8.25	34.70	35.75	0.44	8,570	19.934	4,761
	1/9	253.40	256.40	30.10	19.41	15.51	30.22	34.86	0.48	7,877	18.322	4,376
	1/10	256.40	259.40	30.19	19.54	10.59	34.15	35.71	0.50	8,576	19.947	4,764
	1/11	259.40	262.40	31.70	18.44	11.19	32.37	38.00	0.41	8,613	20.034	4,785
	1/12	262.40	265.40	33.28	19.36	6.42	34.07	40.15	0.26	9,233	21.477	5,130
	1/13	265.40	268.40	33.51	21.85	4.92	35.05	38.19	0.22	9,092	21.147	5,051
	1/14	268.40	271.40	32.69	19.38	5.84	34.18	40.60	0.24	9,353	21.755	5,196
	1/15	271.40	274.40	32.85	20.25	5.30	33.66	40.79	0.21	9,337	21.719	5,187
	1/16	274.40	277.40	33.64	21.56	4.35	34.47	39.62	0.25	9,259	21.536	5,144
	1/17	277.40	280.40	32.55	19.52	7.92	33.23	39.33	0.43	9,024	20.990	5,013
	1/18	280.40	283.40	32.76	20.99	8.06	32.56	38.39	0.47	8,912	20.730	4,951
	1/19	283.40	286.40	30.84	16.09	12.59	35.37	35.95	0.38	8,637	20.090	4,798
	1/20	286.40	289.15	30.75	14.28	14.38	31.44	39.90	0.59	8,880	20.655	4,933
RH-07-13	3/9	75.00	75.20	18.19	6.26	83.27	8.95	1.53	0.22	374	0.871	208
	4/9	75.20	76.40	33.22	19.32	17.36	36.31	27.01	1.24	7,662	17.821	4,256
	1/10,1/11	76.40	79.80	36.16	21.48	10.28	36.58	31.66	0.73	8,218	19.116	4,566
	2/11	79.40	80.20	22.76	10.29	68.30	13.52	7.89	0.26	1,871	4.353	1,040
	3/11	80.20	80.75	35.20	20.94	13.98	36.27	28.81	0.77	7,815	18.177	4,342
	4/11	80.75	81.75	13.93	4.06	84.08	11.08	0.77	0.15	565	1.315	314
	5/11,1/12	81.75	82.33	33.31	23.78	12.04	35.42	28.77	0.47	7,715	17.945	4,286
	2/12	82.33	82.55	14.86	6.93	80.74	10.02	2.31	0.05	656	1.527	365
	6/12	85.10	85.28	18.32	10.17	72.41	11.09	6.32	0.34	1,407	3.273	782
	7/12,1/13	85.28	88.40	35.81	23.40	15.81	28.70	32.08	0.98	7,316	17.016	4,064
	1/14	88.40	91.40	32.82	20.05	23.50	27.03	29.42	0.95	6,781	15.773	3,767
	1/15	91.40	94.40	37.23	25.02	7.11	34.11	33.76	0.42	8,286	19.273	4,603
	1/16	94.40	97.40	37.53	19.56	10.67	31.52	38.26	0.53	8,443	19.639	4,691
	1/17	97.40	100.40	35.75	17.50	15.98	30.75	35.78	0.93	8,108	18.859	4,504
	1/18	100.40	103.40	35.57	18.04	13.58	30.53	37.85	0.60	8,364	19.454	4,647
	1/19	103.40	106.40	37.83	17.15	14.08	31.18	37.59	0.62	8,376	19.482	4,653
	1/20	106.40	109.40	38.45	21.41	6.89	32.06	39.65	0.23	8,801	20.470	4,889
	1/21	109.40	112.40	39.52	17.84	6.91	32.60	42.65	0.36	9,353	21.754	5,196
	1/22	112.40	114.37	39.14	20.13	11.09	31.14	37.65	0.37	8,590	19.980	4,772
	2/22	114.37	114.57	23.99	7.41	62.11	16.76	13.72	0.15	3,163	7.358	1,757
RH-07-14	1/1	196.00	196.60	33.45	22.13	9.13	30.38	38.36	0.52	8,518	19.814	4,732
	1/2	196.60	199.60	35.05	22.59	10.78	29.68	36.95	0.64	8,286	19.273	4,603
	1/3	199.60	202.60	37.25	20.03	7.71	31.47	40.78	0.31	8,960	20.840	4,978
	1/4	202.60	205.60	37.42	23.98	6.11	29.72	40.18	0.21	8,711	20.261	4,839
	1/5	205.60	208.60	36.89	17.33	5.71	32.63	44.34	0.24	9,707	22.578	5,393
	1/6	208.60	210.64	34.75	16.51	13.05	30.88	39.57	0.42	8,759	20.374	4,866
	2/6	210.64	210.84	9.37	0.81	93.96	4.92	0.31	0.01	204	0.474	113
	3/14	234.30	234.50	12.30	2.01	89.69	6.96	1.34	0.05	494	1.148	274
	4/14	234.50	235.15	28.33	11.94	35.01	25.89	27.16	0.67	6,378	14.836	3,544
	5/14	235.05	235.25	9.22	1.35	91.97	5.54	1.13	0.05	466	1.084	259

Abbreviations used for moisture basis: ar=as-received basis, ad=air-dried basis, db=dry basis

Table 3

A COAL SEAM DRILL HOLE COMPOSITE ANALYSES							
		Drill Hole	RH-07-09	RH-07-10	RH-07-11	RH-07-13	RH-07-14
Drilled Depth		From (metres)	89.00	171.55	231.80	75.20	196.00
		To (metres)	111.60	206.75	289.15	114.37	210.64
Total Moisture (ar) (wt. %)			38.35	34.26	32.54	37.38	36.88
Proximate Analysis (ad)		Inherent Moisture (wt. %)	27.09	25.12	23.96	28.13	24.49
		Ash (wt. %)	10.54	11.86	9.37	11.13	8.31
		Volatile Matter (wt. %)	34.75	31.43	32.91	37.83	31.83
		Fixed Carbon (wt. %)	27.62	31.59	33.76	22.91	35.37
Other Analyses (ad)		Total Sulfur (wt. %)	0.58	0.77	0.36	0.60	0.39
		Chlorine (wt. %)	0.104	0.009	0.016	0.006	0.007
		Heating Value (Btu/lb)	7,614	7,778	8,156	7,371	8,281
		Heating Value (MJ/kg)	17.712	18.091	18.970	17.144	19.262
		Heating Value (kcal/kg)	4,230	4,321	4,531	4,095	4,601
Ultimate Analysis (ad)		Carbon (wt. %)	45.63	46.31	49.02	44.14	49.83
		Hydrogen (wt. %)	2.72	2.81	3.04	2.66	3.06
		Nitrogen (wt. %)	0.44	0.46	0.41	0.46	0.56
		Oxygen (wt. %)	40.09	37.79	37.80	41.01	37.86
Mineral Analysis of Ash (db)		SiO_2 (wt. %)	42.56	44.97	42.09	43.62	46.49
		Al_2O_3 (wt. %)	13.12	17.89	16.69	15.71	16.39
		Fe_2O_3 (wt. %)	12.60	9.25	17.85	9.72	5.32
		CaO (wt. %)	12.23	10.86	9.35	11.92	14.61
		MgO (wt. %)	2.73	1.91	2.52	2.84	2.44
		K_2O (wt. %)	0.97	0.85	0.85	1.00	0.89
		Na_2O (wt. %)	2.32	1.05	2.51	1.31	2.42
		TiO_2 (wt. %)	0.71	0.76	0.68	0.76	0.76
		Mn_3O_4 (wt. %)	0.82	0.35	0.27	0.42	0.30
		SO_3 (wt. %)	9.90	9.70	5.92	9.89	8.64
		P_2O_5 (wt. %)	0.03	0.06	0.06	0.08	0.09
		SrO (wt. %)	0.02	0.02	0.01	0.02	0.02
		BaO (wt. %)	0.08	0.10	0.14	0.09	0.14
		ZnO (wt. %)	0.01	0.02	0.02	0.04	0.02
Ash Fusion Temperature	Oxidizing Atmosphere	Initial Deformation (°C)	1176	1236	1244	1189	1173
		Softening (°C)	1186	1246	1254	1198	1181
		Hemispherical (°C)	1198	1258	1262	1206	1195
		Fluid (°C)	1221	1287	1289	1226	1257
	Reducing Atmosphere	Initial Deformation (°C)	1118	1173	1132	1150	1162
		Softening (°C)	1126	1198	1136	1160	1166
		Hemispherical (°C)	1130	1213	1142	1170	1185
		Fluid (°C)	1150	1243	1183	1199	1215
Relative Density (ad) (g/cm^3)			1.32	1.34	1.34	1.35	1.32
HGI			33	29	27	30	32

Abbreviations used for moisture basis: ar=as-received basis, ad=air-dried basis, db=dry basis

Table 4

A COAL SEAM TRENCH SAMPLE ANALYSES												
				Proximate Analysis				Other Analyses				
Trench	Sample Number	Sample Depth (meters)	Total Moisture (ar) (wt. %)	Inherent Moisture (ad) (wt. %)	Ash (ad) (wt. %)	Volatile Matter (ad) (wt. %)	Fixed Carbon (ad) (wt. %)	Total Sulphur (ad) (wt. %)	Heating Value (ad) (Btu/lb)	Heating Value (ad) (Mj/Kg)	Heating Value (ad) (Kcal/Kg)	Relative Density (g/cc)
C	C03	4.0	37.76	19.14	7.38	34.98	38.50	0.60	8,686	20.203	4,825	1.37
	C07	3.6	38.84	18.57	10.89	32.88	37.66	0.78	8,539	19.862	4,744	1.40
D	D06	4.4	45.34	24.41	10.57	31.84	33.18	0.91	7,163	16.660	3,979	1.38
	D24	4.2	46.11	21.89	13.26	42.04	22.81	1.49	6,505	15.130	3,614	1.45

Abbreviations used for moisture basis: ar=as-received basis, ad=air-dried basis

Table 5

11 EXPLORATION

Exploration of the Chandgana Khavtgai Coal Resource Area consisted of a preparation phase, an exploration phase, and a data review and presentation phase. The preparation phase included (1) obtaining the exploration licence, (2) procuring contractors and personnel, (3) establishment of the limits of the exploration licence on the ground, and (4) construction of a topographic base map. The exploration phase included (1) a literature and records search, (2) interpretation of remotely sensed imagery, (3) surface mapping, (4) trenching, and (5) drilling. The data review and preparation phase is mostly represented by this technical report but portions are still in progress.

All the exploration was planned and carried out by or under the supervision of Mr. Robeck, a consulting geologist. He established procedures for each type of exploration that were adhered to by all personnel involved. Mr. Robeck trained several geologists to perform well site geology and monitored their work during the project. Their training included tasks and procedures commonly used in the coal industry. Mr. Kravits visited key features mapped by Mr. Robeck on the surface, the trench and drill hole locations, and the Chandgana Coal Mine; reviewed data from the exploration; and discussed the tasks and procedures followed and found all acceptable.

11.1 Preparation Phase

Obtaining the exploration licence and procuring contractors and personnel are not important to this technical report and are not discussed. The corners of the exploration licence were located and staked by Oyu Survey Company LLC (Oyu Survey) of Ulaanbaatar, Mongolia who is a licenced surveying contractor. Topographic data were gathered by two Oyu Survey crews who traversed the resource area September 12-20, 2007, using a theodolide. The traverses were done in a regular grid pattern with elevation points every 100-150 m where practical to ensure acceptable detail. The surveyed area consists of 5,400 hectares containing approximately 8,000 elevation points. The elevation points were reconciled to the national Mongolian coordinate system which uses the Krassovsky 1940 datum. Following this, all survey coordinates were converted by Oyu Survey into UTM Zone 49 North WGS 1984 coordinates for use by Red Hill.

The topographic map was constructed by Oyu Survey. A hard copy map was provided with contours at 1 m intervals. The elevation data were provided in electronic form.

Coordinates are in the Universal Transverse Mercator (UTM) system Zone 49 WGS 1984 datum and the elevations in metres. The coordinates of the topographic file do not match those used by the Mongolian Government so a conversion was calculated to change the topographic file coordinates to that of the government.

11.2 Exploration Phase

11.2.1 Literature and Records Search

A search of the literature found no directly useful information. A records search was conducted at the Mongolian Government Geological Centre in Ulaanbaatar. This uncovered a cross section, stratigraphic column and several geologic maps at various scales but no detailed information on the Chandgana Khavtgai Coal Resource Area was found.

11.2.2 Interpretation of Imagery

Remotely sensed imagery was obtained and interpreted in the summer of 2007. The imagery included low altitude black and white aerial photos and satellite imagery with a nominal resolution of 14.2 m/pixel (Google Earth, 2007). These were useful in generally locating the coal seam subcrop since it is expressed as large shallow depressions. The imagery also helped in mapping the extent of the Holocene surficial deposits. This work was largely inconclusive in locating lineaments that would be suggestive of the Nyalga Basin Fault, however.

11.2.3 Surface Mapping

Surface mapping was performed in the summer of 2007 with fair success. Surface mapping was considered only fairly successful because Holocene age surficial deposits cover the bedrock making interpretation of subsurface geology difficult. The approximate location of the Nyalga Basin Fault was inferred by changes in topography. The location of the A Coal Seam subcrop that was previously determined by interpretation of remote imagery was better located by mapping the curvilinear alignment of small circular to elongate depressions and shallow hand trenching of these depressions.

11.2.4 Trenching

Eight deep trenches were excavated in the summer of 2007 using an excavator. These trenches confirmed the location and width of the A Coal Seam subcrop and provided access to obtain samples to assess the depth of weathering of the coal and coal quality. Trenches B, C, D, E, and I were excavated in the suspected subcrop zone (Map 3) and exposed the upper portion of the A Coal Seam. This further confirmed that the curvilinear alignment of shallow depressions is located above the subcrop. Samples were obtained from Trenches C and D. Trench A was excavated at Red Hill's Chandgana Tal Coal Project with results reported by Behre Dolbear (2007). Trenches F, G, and H were excavated on the suspicion that a coal seam subcrop was below the surface at these locations but no coal was found. Lithologic logs were not made of the trench exposures. Information on the trenches is given in Table 6.

TRENCH INFORMATION									
Trench		B	C	D	E	F	G	H	I
Started		24/08/07	25/08/07	25/8/07	28/08/07	09/07/07	09/07/07	09/07/07	10/09/07
Ended		24/08/07	25/08/07	25/8/07	28/08/07	09/07/07	09/07/07	09/07/07	10/09/07
Elevation (m)		1145	1147	1147	1149	1156	1142	1148	1143
Start	Easting	414532	414451	414551	414359	420708	419653	419985	414586
	Northing	5238107	5239498	5239274	5239364	5236440	5235824	5235406	5237036
End	Easting	414598	414517	414586	414444	420741	419679	420006	414628
	Northing	5238106	5239481	5239260	5239323	5236413	5235799	5235389	5237016
Coal Seams Uncovered	Upper	No	No	No	No	No coal	No coal	No coal	No
	A	No	Yes	Yes	Yes	No coal	No coal	No coal	Yes
Depth to Coal (m)		N/A	2.2	3.0	2.5	No coal	No coal	No coal	5.0
Coal Thickness (m)		N/A	3.6	4.3	N/A	No coal	No coal	No coal	N/A
Sample Obtained		No	Yes	Yes	No	No	No	No	No
Analysis of Sample		No	Yes	Yes	No	No	No	No	No

Projection: UTM Zone 49 WGS84 Datum. Coordinates are in metres.

Table 6

11.2.5 Drilling

Seven drill holes were drilled in the summer of 2007, five holes west of the Nyalga Basin Fault and two east of the fault. For those west of the fault, a spot coring approach was used where the hole was plug drilled with a full face PCD bit to core point then cored to total depth. All core was HQ size. The core point was missed when plug drilling some of these drill holes such that no core could be obtained for the upper portion of the A Coal Seam. This is understandable because there was no coal seam depth information at the time. All five drill holes east of the Nyalga Basin Fault penetrated through the base of the A Coal Seam. Drilling mud was used as a medium through the surficial deposits then changed to polymer when drilling through the bedrock. Core recovery was good, averaging 90%. Drill cuttings and core were lithologically logged on site and the core was sampled for analysis. After drilling, the drill holes were geophysically logged. The holes were then plugged with cement and a marker placed at the surface.

The two drill holes east of the Nyalga Basin Fault did not encounter coal. These holes were plug drilled with a full face PCD bit to total depth with limited coring in zones of poor circulation. The cuttings and core samples were logged but the holes were not geophysically logged. The holes were plugged with cement upon completion of drilling. Information on the drill holes is given in Table 7.

DRILL HOLE INFORMATION								
Drill Hole		RH-07-09	RH-07-10	RH-07-11	RH-07-12	RH-07-13	RH-07-14	RH-07-15
Started		24/8/07	29/8/07	1/9/07	7/9/07	9/9/07	11/9/07	14/9/07
Ended		27/8/07	31/8/07	5/9/07	8/9/07	10/9/07	13/9/07	18/9/07
Collar Elevation (m)		1147.5	1144.8	1140.6	1151.6	1143.3	1138.4	1135.6
Easting		415243	417044	418844	420644	415222	415196	415169
Northing		5238575	5238554	5238527	5238502	5236775	5234977	5233176
Total Depth (m)		161.35	221.10	289.95	92.40	130.90	244.60	97.00
Coal Seams Penetrated	Upper	Yes	Yes	Yes	No	Yes	Yes	No
	A	Yes	Yes	Yes	No	Yes	Yes	No
Cuttings Log		Yes	Yes	Yes	Yes	Yes	Yes	Yes
Core Log		Yes	Yes	Yes	Yes	Yes	Yes	Yes
Geophysical Log		Yes	Yes	Yes	No	Yes	Yes	No
Analyses of Core		Yes	Yes	Yes	No	Yes	Yes	No

Projection: UTM Zone 49 WGS84 Datum. Coordinates are in metres.

Table 7

11.3 Data Review and Presentation Phase

The lithologic and sampling data were regularly reviewed by Mr. Robeck during the drilling to ensure consistent descriptions, avoid depth errors, etc. Each geophysical logging run and resulting logs were critically reviewed to ensure consistency of presentation, correct depths, and correct sonde response. The data are archived in hard copy and electronic form at Red Hill's Ulaanbaatar office. The data are presented as part of this technical report.

11.4 Summary

The exploration confirmed the presence of a significant coal resource to the west of the Nyalga Basin Fault. The geologic limits of the coal resource are fairly well known though more work is needed to better locate the Nyalga Basin Fault. The coal seams vary from 0 to 61.1 m thick and are under 0 to 228.5 m of overburden. Analyses of the core samples indicate that moderate grade, low rank coal seams are present.

12 DRILLING

This section specifically discusses the drilling methods in more detail. Seven drill holes were drilled in the summer and fall of 2007. The cuttings and core were described from each hole and the core analyzed. The five drill holes in the resource area (west of the Nyalga Basin Fault) were geophysically logged while the two outside were not.

12.1 Type and Extent

Landdrill International Inc. of Ulaanbaatar, Mongolia, was contracted to drill the holes and used a truck-mounted Longyear Model 44 rig. The procedure was to (1) drill with a 132 mm (HWT) full face PCD bit and set conductor casing, (2) drill the overburden to core point with a 96 mm (HQ) full face PCD bit using polymer as a medium, and (3) core from core point to total depth with an HQ-3 core drilling string. Coring was done using HQ rods behind a 96 mm OD diamond core bit with inert polymer as a medium. Wireline coring methods were used with a sleeved 3 m core barrel assembly. All drilling was done on a 24-hour schedule. The drilling method, drilling procedures, and size of core obtained is considered appropriate for the logistics of the area, goals of the drilling, and type of analyses desired.

Five of the drill holes were drilled west of the Nyalga Basin Fault and two east of the fault. Those in the resource area west of this fault were located to maximize characterisation of the resource and the reliability of the resource estimate. These five drill holes penetrated the full thickness of the upper member of the Zuunbayan Formation. The two drill holes east of the Nyalga Basin Fault were drilled to confirm the lack of coal and to help locate and characterize the fault. The drill hole locations and elevations were obtained by ground survey methods using a theodolide.

Drill cuttings were collected at one metre intervals, described and the lithologic information logged onto forms. The drill core was described in white light and ultraviolet light, the information logged on forms at a scale of 3 cm=0.5 m, and the core photographed with a digital camera. The core information logged includes lithology, rock mechanics, and sampled intervals. Other information was noted during drilling and logging including water and gas encountered and unusual drilling conditions. After completion of the core logging, the core was sampled, placed in plastic sleeves, and the samples noted on the core log. The sampling method and sample treatment are described in more detail in Section 13. The lithology and rock mechanics information are considered to be logged in acceptable detail.

After reaching total depth, the drill holes in the resource area were geophysically logged. Some of these were logged through the core rods if the hole was not stable. The logging suite included gamma, spontaneous potential, gamma-gamma density, single point resistivity, and caliper. Printed field copies at a scale of 1 cm=2 m and Log ASCII Standard (LAS) electronic files of the logs were provided to Red Hill.

Upon completion of logging the drill holes in the resource area or reaching total depth for the drill holes outside the resource area, the holes were plugged with bentonite chips and capped with 2 to 5 m of cement. The conductor casing was pulled from some of the drill holes. A marker with drill hole identification information was placed in the top of the cement.

12.2 Summary and Interpretation of Results

The drilling confirmed the presence of a widespread thick coal seam and other less extensive but thick coal seams, enabled placement of most of the resource in the measured and indicated assurance-of-existence categories, further defined the structural geology, provided cores for analysis, and gave indications of groundwater conditions.

Accurate measurements of the depth and thickness of the coal seams are now available. Logs of the holes showed the A Coal Seam and the stratigraphically higher upper coal seams can be correlated between drill holes with good reliability. The A Coal Seam is the lowest coal seam followed by two upper intervals containing thinner coal seams. The A Coal Seam is the thickest ranging from 23.8 to 66.1 m thick, is found at a depth up to 228.5 m, and has the greatest areal extent. The upper coal seams are thinner, have an aggregate thickness ranging from 0 to 12.8 m, and have a limited extent. All these coal seams contain partings.

The drill hole spacing maximised placement of coal resources in the measured and indicated assurance-of-existence categories. Cores allowed visual characterisation of rock properties and provided samples for analysis. The overburden and interburden rocks and the coal are weak being poorly to moderately lithified but with few fractures. Analyses of the coal showed it to be moderate grade and low rank. Finally, the drilling found a 33 to 42.5 m thick artesian aquifer above the A Coal Seam in a portion of the resource area.

The drilling helped confirm the geology of the resource area. The attitude of the coal seams is now known. Projection of the A Coal Seam dip to the surface using the drill hole data intersects the subcrop located by other methods. The drilling indicates there to be a small likelihood of major displacement faulting within the resource area. But the drilling did not accurately locate or characterize the Nyalga Basin Fault. Its location is somewhat better known (Map 3) and appears to be a normal dip slip fault that dips to the northwest with approximately 300 m of displacement.

The apparent coal seam thicknesses determined from geophysical and lithologic logs were not adjusted to true thicknesses for the resource estimate. This is because the small dip of 3° to 5° renders the decrease in thickness insignificant.

13 SAMPLING METHOD AND APPROACH

The approach and methods used to sample the coal seam were those common for thick stratiform deposits and specifically for thick low rank coal seams. Coal and rock samples were obtained from drill holes and trenches from which only the A Coal Seam and enclosing rocks were sampled.

13.1 Sampling Approach

Exposures in the nearby Chandgana Coal Mine suggested that at least one of the coal seams should be very thick. Thus, having a thick stratiform deposit and considering that the exploration is the first in the resource area, the approach used was to obtain samples that gave a reliable gross estimate of coal quality. To meet this goal, sampling was planned to (1) obtain samples at widely spaced locations, (2) sample the full thickness of the coal seam, (3) determine the limit of weathered coal, and (4) ensure the samples are representative of the grade and rank of the coal. The desire to obtain samples at widely spaced locations complimented the desire to place as much of the resource in the higher assurance-of-existence categories as possible.

Drilling and trenching were then considered most appropriate for obtaining samples. Large diameter HQ drill cores were obtained using a three metre core barrel. Only the A Coal Seam was cored because the existence of the upper coal seams was not known. The full thickness of the A Coal Seam was cored where possible. Unfortunately, in some cases a portion of the top of the coal seam was rotary drilled before changing to the core drilling string because the structure of the coal seam was not known. The cored intervals are indicated relative to the entire coal seam thickness in Figure 5. The representativeness of the core samples was enhanced in several ways, by (1) selecting large diameter core to increase core recovery, (2) core drilling on a 24 hour schedule to increase core recovery, and (3) using inert drilling fluids to reduce core contamination.

Trenching with an excavator was primarily done to locate the A Coal Seam subcrop, but secondarily to obtain samples for analysis. Personnel entered Trenches C and D and sampled the coal seam. The representativeness of the trench samples was enhanced by obtaining large samples and placing the sample in plastic to preserve in-situ moisture. Information on the trenches is given in Table 6.

13.2 Sampling Method

The sampling of cores was started and completed as soon as possible after lithologic descriptions and photographs were done. The sampling method followed that of ASTM D 5192 where practical. Sample treatment methods included washing the core of contaminants and allowing sufficient time for the free water to drain from the core to enhance sample representativeness. Sample preservation included placing the core in 6 mil plastic sleeves to minimize moisture loss then placement on wooden core boxes for protection. The samples were removed from the core tray in intervals up to 1 m in thickness depending on the thickness of partings and the beginning and end of core runs.

The guidelines used in selecting sample intervals include:

1. Bone coal was sampled similar to coal.
2. Partings less than 0.3 m thick were included with coal.
3. For partings between 0.3 and 0.5 m thick, the entire parting was sampled separately and sent to the laboratory.

4. For partings greater than 0.5 m thick, the lower and upper 0.2 m were sampled separately from the middle portion of the parting. The lower and upper splits were sent to the laboratory, while the middle split was archived.
5. The first 0.2 m of rock other than coal or bone coal above and below the coal seam was sampled separately and sent to the laboratory.
6. The minimum coal seam thickness or aggregate coal plus parting thickness is 0.5 m.
7. Stray coal seams greater than or equal to 0.5 m were sampled.

The samples were then placed in 6 mil plastic sleeves, the sleeves sealed and labelled, and the sample placed into partitioned wooden core boxes for shipping. The plastic sleeves preserved the samples from loss of moisture and introduction of foreign materials and kept the samples separate from other core samples. A total of 82 core samples were obtained from the five drill holes in the resource area. Six samples were combined with adjacent samples for analysis, leaving a total of 76 analyzed samples from the drill holes.

The trench samples were obtained after exposing the coal seam with an excavator. Then a hand pick was used to prepare a surface of the coal seam that was clean of extraneous material. The sample was obtained by removing a square metre area 15 cm deep with a pick. Care was practiced to avoid contamination from sloughage of the trench sides and to package the sample before moisture was lost. The sampled coal was then gathered, placed in a sturdy plastic bag, and prepared for shipment. The sampling procedures followed ASTM D 4596 but were modified in some aspects because of the location and logistics of the exploration area. There are two trench samples obtained for analysis from each of Trenches C and D. Though these samples are representative of the intervals sampled, they are not, and are not intended to be, representative of the full seam thickness.

13.3 Sample Quality

The sampling approach and the sampling methods used to fulfill the approach resulted in high quality representative samples. The sampling procedures outlined in ASTM D 5192 and D 4596 were adhered to though some modifications, which are acknowledged in those designations, were needed because of factors beyond Mr. Robeck’s control. Core loss has the greatest potential to decrease sample quality, but the amount of core loss is so small that the decrease in sample quality is insignificant.

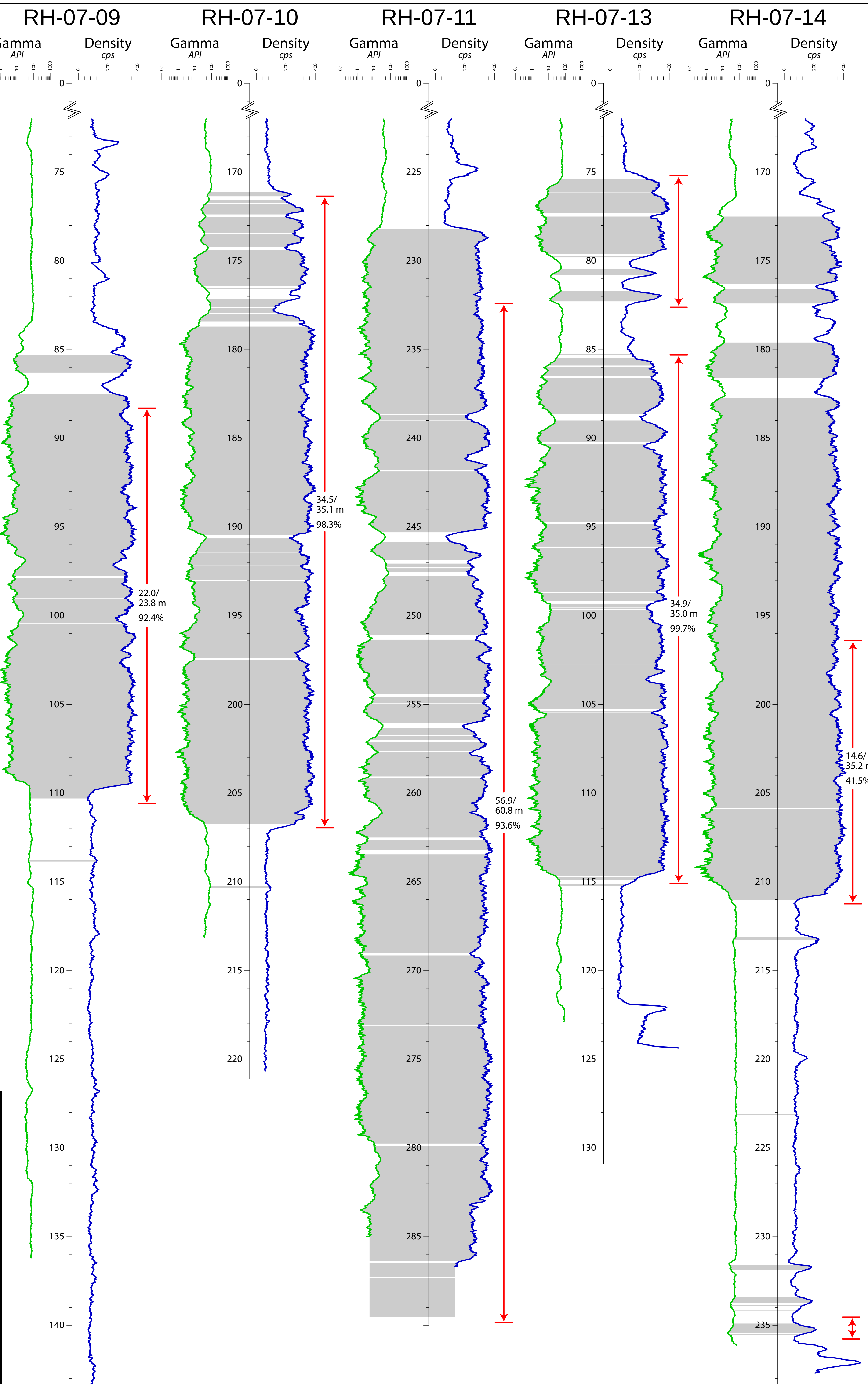


Figure 5. A Coal Seam Sampled Intervals

14 SAMPLE PREPARATION, ANALYSES AND SECURITY

All the drill core and trench samples were prepared and analyzed in accordance to ASTM International (ASTM) procedures in the coal laboratories of SGS-CSTC Standard Technical Services Co., Ltd. These laboratories are located in Ulaanbaatar, Mongolia (SGS Mongolia), the test centre in Tianjin, China (SGS mineral fuels), and the geochemical and ores laboratory in Tianjin, China (SGS geochemical and ores). Sample security was established and well maintained from the drill site to reporting of the results.

14.1 Laboratories

The SGS laboratories in Tianjin are accredited by the China National Accreditation Service for Conformity Assessment (CNAS) under Certificate No. CNAS L2774. This accreditation specifies that these laboratories are certified to perform the analyses reported in this technical report according to ASTM and ISO procedures. The SGS Mongolia laboratory is accredited under ISO 9001 and only prepared the samples and sent representative splits to the SGS Tianjin laboratories. The SGS mineral fuels laboratory performs all the types of coal analyses reported in this technical report except ash analysis and nitrogen. The SGS geochemical and ores laboratory performed the ash analyses and nitrogen analyses. The accreditation, quality control, and other documents were obtained and reviewed by Mr. Kravits. The accreditation was granted August 3, 2006 and expires August 2, 2011. The Tianjin laboratories participate in a corporate quality control round robin program on a monthly basis. They have ranked a minimum of 'capable' for the period October 2006-September 2007 (Murray, 2007). Based on this information, it is the opinion of Mr. Kravits that the sample preparation, analytical, and security procedures practiced by the SGS Tianjin laboratories is adequate for the analyses required of this technical report.

14.2 Sample Preparation

The conditions under which the samples were prepared followed ASTM D 2013. Further, routine equipment maintenance was practiced including cleaning of equipment before preparation of each sample, use of clean containers, etc., and an enclosed dust extraction system is used in the sample preparation rooms (Murray, 2007). The SGS Tianjin laboratories externally and internally audit sample preparation methods as part of their CNAS certifications.

The samples were received from the field by SGS Mongolia who verified that they were complete, crushed and split them and retained a reserve sample (Robeck, 2007). Preparation of the gross sample followed ASTM procedure then followed the specific preparation required for the type of analysis. It is important to note that the SGS Tianjin mineral fuels laboratory made a reasonable and acceptable modification to the ASTM D 2013-04 procedure by measuring moisture before and during sample preparation. Sample splitting was planned so as to have sufficient sample for preparing composite samples. The reserves of each sample have been delivered to Red Hill and are being kept in a storage facility in Ulaanbaatar.

14.3 Sample Analyses

All samples were analyzed using the appropriate ASTM International test method following any sample preparation required for the type of analysis. The sample preparation methods, practice and test methods used by SGS (Murray, 2007), and the number of samples analyzed for use in this technical report is given in Table 8.

SAMPLE PREPARATION AND ANALYTICAL METHODS			
Analysis	Gross Sample Preparation Method	Practice and Test Method	Number of Samples
Total Moisture	ASTM D2013-04	ASTM D3172-89 ASTM D3173-03	86
Ash	ASTM D2013-04	ASTM D3172-89 ASTM D3174-04	86
Heating Value	ASTM D2013-04	ASTM D5865-04	86
Total Sulfur	ASTM D2013-04	ASTM D3177-02	86
Volatile Matter	ASTM D2013-04	ASTM D3172-89 ASTM D3175-02	86
Fixed Carbon	ASTM D2013-04	ASTM D3172-89	86
Ash Analysis		ASTM D4326-04	5
Ash Fusibility	ASTM D2013-04	ASTM D1857-04	5
Carbon	ASTM D2013-04	ASTM D3176-89 ASTM D3178-89	5
Hydrogen	ASTM D2013-04 ASTM D3176-89	ASTM D3178-89	5
Nitrogen	ASTM D2013-04 ASTM D3176-89	ASTM D3179-02	5
Oxygen	ASTM D2013-04 ASTM D3176-89	Calculated by difference	5
Chlorine	ASTM D2013-04	ASTM D2361-02	5
Hardgrove Grindability Index	ASTM D2013-04	ASTM D409-02	5
Apparent Specific Gravity	ASTM D2013-04	See text	86

Table 8

There is not an approved test method for apparent specific gravity by any standards organisation. SGS uses a method that has been practiced by the coal analysis industry for decades and accepted by the coal industry.

The trench samples were analyzed only for comparative purposes and to gauge depth of weathering. They are not included in the data used to estimate in-place coal quality.

14.4 Sample Security

A chain of custody form was completed by the drill site geologist that gives sufficient information to identify the samples and describes the analyses required. The chain of custody accompanied the samples and was signed by all parties involved in the transport of the samples and SGS Mongolia upon receipt. SGS Mongolia then entered the sample information into their laboratory information management system which generated unique laboratory identification numbers. Sample preparation and laboratory worksheets are then prepared by the LIMS to track each sample to the final report. The laboratory manager is responsible for tracking all samples as a part of the accreditation and was recently validated by ISO (Murray, 2007). Once in the custody of SGS, the samples were sealed and stored in a secure lockable location to prevent tampering.

None of the samples were handled by Mr. Robeck, Mr. Kravits, or any employees, officers or directors of Red Hill after packaging at the drill site and none of these parties were involved in preparation or analysis of the samples.

15 DATA VERIFICATION

There are four types of data used in this technical report: topographic data, stratigraphic data, trench data, and analytical data. Each type of data was reviewed to verify that it represents the location, depth and/or other descriptive information of its source. The quality of the data was then assessed by a review for accuracy and errors. The methods used vary according to the type of data and were performed using practices common in the coal industry.

15.1 Data Verification

The topographic data and the map produced from this data were verified by Mr. Kravits during the site inspection and with information obtained during the inspection (Kravits Geological Services, 2007). This was done by comparing the coordinates and elevation of the drill holes, trenches, and licence corners determined with a handheld GPS receiver to the coordinates and elevations on the geologic map (Map 3).

The stratigraphic data were verified by Mr. Kravits in two ways. These included comparison of the identification, location, and other information of the drill holes in the stratigraphic database to the information on the geophysical and lithologic log headers and the information obtained during the site inspection and comparison of the interpreted and correlated geophysical logs by Mr. Kravits to those of Mr. Robeck.

The trench data were verified against observations made and coordinates obtained by Mr. Kravits during the site visit and notes made and pictures obtained by Mr. Robeck during the trenching.

The analytical data were verified by comparison of the descriptive information (drill hole number, depth interval, sample number, and lithology) accompanying the quality data to that of the core log and chain of custody.

15.2 Quality Control

The quality of the topographic data was assessed by Mr. Kravits by reviewing the topographic map made by computer gridding and contouring the elevation data. The map was reviewed for anomalous features and contour values. Further, the general location, shape, and size of topographic features observed on the ground were compared to those on the topographic map.

Before the quality of the stratigraphic data was assessed, the quality of the geophysical logs was reviewed. This included (1) a review of log presentation (legibility, depth scale continuity, depth corrections, etc.), (2) a review of sonde calibration data, and (3) comparison of core lithologies to the log curves for depth and log response. The geophysical logging contractor is Monkarotaj LLC (Monkarotaj) based in Ulaanbaatar, Mongolia who uses equipment manufactured by Auslog Pty Ltd (Auslog) based in Australia. The sonde information and recent calibration data was obtained by Mr. Kravits from Monkarotaj (Izmaylov, 2007). The winch, software, and sondes were calibrated August 2, 2007 by Auslog. The quality of the stratigraphic data was then assessed by (1) comparison of the depth interval, elevation, thickness and lithologies of coal seams, partings and interburden rocks obtained from interpretation and correlation of the geophysical logs by Mr. Kravits to that in the data base and (2) comparison of the lithologies, coal seam depths, and parting depths noted in the core logs to that determined from the geophysical logs.

The trenches produced data on the coal seam subcrop location and coal quality. It was only possible to assess the quality of the trench data in a general sense by comparison to the geology of the resource area and to the quality of the core samples.

The analytical data were reviewed using a variety of methods to find analyses that may be in error. These included:

1. Simple logical tests including (a) a check that air-dried moisture is less than as-received moisture, (b) a check that values for air-dried basis parameters are greater than those for the as-received basis and similarly that values for dried basis parameters are greater than that for as-received and air-dried basis, and (c) a check that the ash fusion temperatures increase from initial deformation through softening then hemispherical and finally to fluid.
2. A scan for anomalous values. This was done by sorting the data by lithology and calculating descriptive statistics for each lithology. Values greater than two standard deviations from the mean were considered anomalous and thus suspect and then assessed to verify their validity.
3. A check that the proximate parameters (moisture, ash, volatile matter, and fixed carbon) of the same moisture basis total to 100%. Those analyses that did not total to 100% would be further evaluated to determine which parameter(s) were in error.
4. A check that the ultimate parameters (carbon, hydrogen, nitrogen, and oxygen) plus moisture and ash of the same moisture basis total to 100%. Those analyses that did not total to 100% would be further evaluated to determine which parameter(s) were in error.
5. Calculation of a multiple linear regression equation relating heating value to moisture and ash of the same moisture basis. The regression equation has a high coefficient of correlation and so can be used to find heating values that may be in error.
6. Calculation of a regression equation relating dry ash to specific gravity or density. The regression has a high coefficient of correlation and so is used to find suspect dry ash, specific gravity, or density values.
7. Comparison of these analyses to analyses of drill cores or run-of-mine coal or published analyses from nearby areas. This is a more general method of assessing the quality of the data but yet may point to questionable data that can be verified using other methods.

15.3 Removal of Unusable Data

The coal quality data were also reviewed for analyses that, though meeting the verification and quality tests, should be rejected for other reasons. The most common reason to reject an analysis is that the analysis is of weathered coal. Weathered coal is not representative of the coal expected to be mined and marketed and so the analysis is not included with those of unweathered coal. Less heating value and greater oxygen content will be found in weathered coal. The analysis should be retained though because it can be useful in mapping the margin of weathered coal.

15.4 Results

The topographic map was successfully verified and found to be an accurate and faithful representation of actual surface topography. The stratigraphic data were successfully verified and found to accurately represent the depth of the correlated coal seams and the derived thicknesses, elevations, and strip ratios were correct. The presentation and quality of the geophysical logs are acceptable. The trench data were successfully verified. Only the analytical data from Trench C are considered acceptable; those from Trench D are not. The analyses of the Trench D samples appear to be correct but are not representative of fresh coal within the resource area. The analytical data were successfully verified and review of the data found them to be acceptable with two exceptions. The Hardgrove grindability indices are questionable. They appear low for a coal of this rank and compared to that of the Chandgana Tal Project. However, reruns produced similar results and some lignite A-subbituminous B American coals have similar Hardgrove grindability indices. The other exception is that conversion of the laboratory-determined air-dried basis ultimate analysis to as-received and dried basis values give questionable results. The conversions were made using the appropriate ASTM equations yet the results are questionable and are considered possibly a result of the low rank of the coal. No unusable data were found. Thus, Mr. Kravits found all the types of data used in compiling this technical report to be acceptable.

16 ADJACENT PROPERTIES

Licensing and mining activity and geologic and coal quality characteristics of adjacent properties are briefly described here. There are exploration and mining licences adjacent to and near the Chandgana Khavtgai Coal Resource Area (Map 1). Red Hill holds an exploration licence and a mining licence covering their Chandgana Tal Coal Project 9 km northeast of the resource area. A technical report on the Chandgana Tal Coal Project was prepared for the Toronto Stock Exchange by Mr. Gardar Dahl (Behre Dolbear, 2007). This report was reviewed by Mr. Kravits but the raw data were not reviewed. Berkh-Uul holds a mining licence adjacent to those of Red Hill and mines coal on a sporadic basis. Other contiguous licences are held by Tethys Mining (a subsidiary of CVRD), Nekstmain, Adamas Mining, Centerra Gold, and Aziin Bolor.

The Chandgana Coal Mine, shared by Red Hill and Berkh-Uul, was visited by Mr. Kravits during the November 17, 2007, site inspection to gain a sense of geologic and mining conditions. The goals of the visit were to (1) examine the character of the coal seam (colour, partings, lithology, cleating, and competency), (2) examine the character of the overburden rocks (lithology, fractures, degradation from exposure, and competency), and (3) examine the character of faults, joints, and cleats.

The information gained from the site inspection to this nearby mine was useful in preparing this technical report because it provided insight into geologic and potential mining conditions at the Chandgana Khavtgai Coal Resource Area (Kravits Geological Services, 2007). These insights included:

1. The coal is mostly black with a slight brown shade. This suggests a higher rank than expected and is supported by the chemical analyses.
2. The overburden is poorly to moderately lithified and readily air slakes. This would decrease core recovery and decrease stability of a surface mine highwall or underground mine roof and floor rock.
3. The coal is low rank, crumbly, and has many fusain bands. This would decrease core recovery and decrease pillar stability in underground mines.
4. The coal readily desiccates indicating that care must be exercised to minimize moisture loss during sample handling and preparation for analysis.

The quality of the coal from the Chandgana Tal Project reported in Behre Dolbear's technical report (Behre Dolbear, 2007) were compared to that in this report. Generally, the quality of the A Coal Seam from the resource area compared well to Chandgana Tal. But, differences were found with moisture and Hardgrove grindability where Chandgana Tal has greater values. The A Coal Seam appears to be a higher grade (less moisture, ash, and sulphur and greater heating value) than Chandgana Tal but is a slightly lower rank. Mr. Kravits has not verified the Chandgana Tal information and does not suggest that this coal quality is indicative of that of the resource area.

17 MINERAL PROCESSING AND METALLURGICAL TESTING

The title used here is considered to have the same intent as the coal preparation and utilisation testing section title in NI 43-101F1. No coal preparation tests have been performed on the samples to assess moisture, ash, or sulphur reduction. No coal utilisation tests have been performed to assess combustion methods, ash behaviour, etc. Though some analyses performed on the samples and derivative calculations give some general information useful for assessing coal combustion methods. Also, no tests have been performed to assess the applicability of the coal to coal conversion methods. Some tests are recommended for the core samples obtained in 2007 and the exploration planned for 2008 as discussed in Section 21.

18 MINERAL RESOURCE AND MINERAL RESERVE ESTIMATES

The Canadian Institute of Mining, Metallurgy and Petroleum (CIM) requires resources to have reasonable prospects of economic extraction. Preliminary information has been developed, or is in the process of development, by Red Hill to evaluate factors that affect economic extraction. Local and regional markets were evaluated that could utilize the coal resource. Besides the regional demand, it was found that local use, especially conversion to other fuels, appeared feasible. A coal transportation study has been completed that evaluated transportation to other parts of Mongolia and the former Soviet Union and addressed routes, costs, and available capacity. The results were favourable, increasing the potential for economic extraction of the coal resource. Also, it is expected that there will be no major environmental obstacles to extraction. This is based on Red Hill's environmental analysis of their Ulaan Ovoo Project. Other factors will be evaluated in the first quarter of 2008. This information along with generally favourable mining geology and the moderate coal grade suggest economic extraction of the resource is possible.

Only coal resources are estimated for the Chandgana Khavtgai Coal Resource Area because the project has not reached the mining feasibility stage. The coal resource was estimated in five steps: (1) the making of determinations and assumptions and selection of parameters, (2) coal seam correlation, (3) construction of computer data files, (4) computer modeling of the coal resource, and (5) computer calculation of the coal resource.

18.1 Resource Estimation Requirements

This section of the technical report is prepared to comply with the requirements of NI 43-101. The coal resource estimate is made following the guidelines described in Geological Survey of Canada Paper 88-21 and reported using the mineral resource categories described in CIM Definition Standards for Mineral Resources and Mineral Reserves. The mineral resource categories used herein are considered by the authors to be equivalent to those same resource categories described in Geological Survey of Canada Paper 88-21.

The authors recognize that the Canadian Securities Administration does not consider it reasonable to use the guidelines and resource categories of Geological Survey of Canada Paper 88-21 for estimating and reporting the coal resources of foreign properties such as the Chandgana Khavtgai Coal Resource Area. It is understood that technical, regulatory, economic, and other constraints on possible development are likely quite different than that of Canada and so may make the guidelines and categories inapplicable. However, the guidelines and categories of Paper 88-21 are used because Mongolia has no such standards and use of these standards provides a basis from which interested parties can compare the resource estimate to their own criteria.

18.2 Determinations, Parameters and Methods

18.2.1 Determinations

The amount and distribution of data are determined to be marginally sufficient for the estimate of resources and grade. Additional drill holes are preferred in the east-central portion of the resource area. But the demonstrated continuity and consistent thickness of the A Coal Seam, the main resource-containing coal seam, indicates that the drill hole distribution probably does not detract from the reliability of the resource estimate or the estimate of grade and rank. In fact, the drill hole spacing is sufficient to place more than half of the resource in the measured and indicated assurance-of-existence categories.

The complexity of the geology of the resource area is determined to be in the moderate category. The coal seams and partings are easily correlated using physical stratigraphy methods. But, the structural geology is not simple for several reasons. The Nyalga Basin Fault, an apparent large displacement normal fault bounding the resource area to the south-east is present, there is the possibility of sympathetic faults, and though the dip of the strata averages 3°, it ranges from 2.5° to 10.5° locally.

The resource area is determined to be a surface type deposit though a portion of the resource may be more suitable to underground mining or the energy value recoverable by non-conventional methods. The surface type of deposit was assigned because (1) surface mining is the most likely initial mining, (2) the in-situ strip ratio is very low across the resource area, and (3) the great thickness of the A Coal Seam and to an extent the upper coal seams, and the lower competency of the coal seams, interburden and overburden rocks probably make for low resource recovery and difficult mining by underground methods. Further, this is a future interest type resource (as discussed following) and improvements in surface mining technology and methods or a novel mine design may allow more of the resource to be recovered to greater depth.

The feasibility of exploitation category of the resource area is considered to be future interest. The resource area contains a significant moderate grade coal resource with generally favourable mining conditions but it currently lacks infrastructure and is far from existing markets. The lack of local infrastructure for mine development was described in Section 6. However, the need to upgrade or extend major infrastructure needs (power and railroad) from a distance of over 100 km underscores this determination. Further, the closest markets are a significant distance away and are presently supplied by existing closer mines.

18.2.2 Parameters

The parameters used in estimating the coal resource follow those given in Geological Survey of Canada Paper 88-21 but also include others commonly used for surface mineable coal resources. These parameters include:

1. Coal resources were estimated up to the licence boundary if there was no other spatial limit.
2. Coal resources were estimated to the projected surface trace of the Nyalga Basin Fault.
3. A minimum single coal seam thickness of 0.45 m was included in the estimate.
4. A maximum rock parting thickness of 0.30 m was included in the estimate.
5. A minimum aggregate coal seam thickness (coal + parting) of 0.50 m was included in the estimate.
6. No limit was placed on the coal/rock thickness ratio.
7. Coal at a depth shallower than 10 m was not included in the estimate.
8. An average relative density of 1.43 grams/cc was used to convert coal volume to mass.

These parameters do not need explanation except 7 and 8. Coal shallower than 10 m is excluded in order to remove weathered, oxidised coal. A conservative 10 m depth was used because the trench samples showed a marked decrease in dry ash-free heating value when depth was less than 4 m compared to analyses of fresh coal from the core samples. The average depth of the surficial deposits is considered to be 5 m and the depth of coal seam weathering may be as deep as an additional 5 m, making for a total of 10 m. The average relative density is the thickness-weighted average of all the A Coal Seam drill hole composites. The A Coal Seam composites were determined in the laboratory from full coal seam composites and checked against the calculated weighted average density of the individual coal plies and partings. Remember that the full seam composites include bone coal and rock partings as described in Subsection 13.2 (but not roof and floor) and so the density is representative of an average ash content of 9.01% (as received), and not the pure coal itself. This density is used for the upper coal seams resource estimate because these coal seams were not cored and these coal seams and associated rocks are considered to have similar relative densities because of an expected similar depositional and structural history.

Note that the thickness parameters used to include coal plies and partings for the resource estimate (described above) are close to but not the same as those used in making full seam composites for analysis described in Subsection 13.2. Further, the thickness parameters for coal plies and partings would not be practical when mining. Thus, a coal reserve estimate made following a mine feasibility study will be different than that given here.

18.2.3 Methods

The coal seams were correlated using physical stratigraphy methods because of the dominance of coal seams in the section, the presence of a good marker bed, the character of the coal seams, and the relatively simple structural geology. The method involved matching geophysical log sequences, coal seam thickness, coal seam patterns, and parting patterns. The correlations were later tested by mapping coal seam, parting, and interburden thicknesses and coal seam structure.

Several computer data files were compiled for use in estimating the coal resource and describing its general mineability. The first file represents the topography of the resource area and was compiled as described in Subsection 11.1. The second file contains stratigraphic information including drill hole coordinates, drill hole elevations, depths of the top of the A Coal Seam, and coal seam thicknesses (Table 9). The third, fourth, and fifth computer files contain vertices describing polygons that limit the coal volume calculation for the measured, indicated, and inferred, respectfully, assurance-of-existence resource categories. The topography file and the polygon files are not included with this hard copy of the technical report because of their size and so are archived at Red Hill's office.

STRATIGRAPHIC DATA					
	Drill Hole				
	RH-07-09	RH-07-10	RH-07-11	RH-07-13	RH-07-14
Easting (m)	415243	417044	418844	415222	415196
Northing (m)	5238575	5238554	5238527	5236775	5234977
Collar Elevation (m)	1147.50	1144.81	1140.62	1143.28	1138.38
Depth To Top of A Coal Seam (m)	85.30	171.12	228.20	75.40	172.50
Upper Coal Seams Thick (m)	0	11.30	0	2.42	12.80
A Coal Seam Thick (m)	23.80	35.09	60.77	34.99	35.24

Table 9

The coal resource was then modeled with computer software using the stratigraphic data file. Isopach maps of the coal seams, the structure of the A Coal Seam, and an in-place strip ratio map were created. An overburden isopach map for the overburden above the A Coal Seam was also made. The parameters used for inclusion of coal plies and partings in determining coal seam thickness are described in Subsection 18.2.2. A grid is a computer-generated two-dimensional array of regularly spaced values representing the spatial change in the value of a parameter. The topographic and stratigraphic data were used to create the following maps:

1. Coal seam isopachs were made by creating a grid of coal seam thickness and converting grid node values less than the minimum thickness to a null value. These grids were then contoured.

2. The structure of the A Coal Seam was created by gridding the elevation of the top of the coal seam. This grid was then contoured.
3. The A Coal Seam overburden map was created by subtracting the grid of the elevation of the top of the A Coal Seam from the surface topography grid then contouring this grid.
4. The in-place strip ratio map was created in three steps: (1) The coal seam thickness grids are added together making a total coal seam thickness grid, (2) The values of the total coal seam thickness grid are multiplied by 1.43 g/cm3 making a grid of tonnes in place, (3) The upper coal seams thickness grid was subtracted from the A Coal Seam overburden grid and added to the thickness of the A Coal Seam partings, making a grid of total burden, and (4) The total burden grid in cubic metres in-place is divided by the tonnes in place grid making a grid of the in-place strip ratio in cubic metres of burden per tonne of coal.

The SurGe gridding software was used to create the grids and uses their proprietary ABOS (Approximation Based On Smoothing) algorithm (Dressler, 2007). This is a conservative gridding algorithm that limits extrapolation yet honors the data. The modeling was done by Mr. Robeck who has four years of experience modeling coal resource areas with the software. Each map was critically reviewed by Mr. Kravits before use.

Coal seam resources were estimated with three basic steps as follows: (1) Each coal seam isopach grid was clipped at the minimum aggregate seam thickness, as described above, (2) Each coal seam isopach grid was then clipped using the polygon files appropriate for the assurance-of existence category, (3) The volume of the remaining subset of the grid was determined, and (4) The volume was converted to a mass in tonnes using the specific gravity. This gave the amount of tonnes in each assurance-of-existence category by coal seam. These numbers were entered in a table and totalled by coal seam and assurance-of-existence category.

18.3 Coal Seam Resources

Coal seam resources are found in the upper coal seams and the A Coal Seam with the majority (90%) in the A Coal Seam (Table 10). The resources in the upper coal seams are 21.8 million tonnes in the measured category and 49.4 million tonnes in the indicated category, for a total resource of 71.2 million tonnes. An additional 42.8 million tonnes fall in the inferred category. The resources in the A Coal Seam are 165.9 million tonnes in the measured category and 419.9 million tonnes in the indicated category, for a total resource of 585.8 million tonnes. An additional 366.3 million tonnes fall in the inferred category. The total estimated resource in the measured and indicated assurance-of-existence categories is 657.0 million tonnes.

COAL SEAM RESOURCES				
Coal Seam	Assurance-of-Existence Category			Total Measured and Indicated
	Measured	Indicated	Inferred	
Upper Coal Seams	21.8	49.4	42.8	71.2
A Coal Seam	165.9	419.9	366.3	585.8
Total	187.7	469.3	409.0	
Total Measured and Indicated	657.0			

Resources are in millions of tonnes

Table 10

The accuracy of the resource estimate is judged to be good. This is because the parameters and methods used are reasonable, the coal seam correlations are reliable, the computer data files are accurate, the computer modeling is reasonable, and the correct math is used to convert the coal volume to tonnes. An increase in the number or a better distribution of the drill holes probably would not significantly increase the accuracy of the estimate because of the good correlatability and relative consistent thickness of the coal seams.

The average coal quality was estimated for the A Coal Seam for each assurance-of-existence category (Table 11). This was done by gridding each parameter from the drill hole composite analyses across the resource area and averaging the grid values for each assurance-of-existence area.

A COAL SEAM AVERAGE IN-PLACE COAL QUALITY BY ASSURANCE OF EXISTENCE CATEGORY				
Assurance-of-Existence Category	Moisture (ar) (wt. %)	Ash (ar) (wt. %)	Heating Value (ar) (kcal/kg)	Sulfur (ar) (wt. %)
Measured	35.4	8.8	3,800	0.5
Indicated	35.6	8.9	3,800	0.5
Inferred	35.4	8.9	3,800	0.5

Table 11

18.4 Effect from Technical and Infrastructure Influences

This coal resource estimate could be affected by changes in mining technology. Thick coal seams are now being recovered successfully by longwall mining methods adapted for such coal seams in China and Australia (Duncan, Sobey, and Clarke, 2007) and Turkey (Unver and Yasitli, 2006). The Chandgana Khavtgai Coal Resource Area may be amenable to these methods. If the resource were then considered mineable by underground methods, the resource estimate would decrease. This is because a greater minimum coal seam thickness is required for inclusion in resources determined to be mineable by underground mining methods.

Should infrastructure become available to the resource area, especially sufficient electrical power and rail transportation, the feasibility of exploitation of the resource area could be reclassified as an immediate interest type. The coal resource estimate then would decrease slightly because the required minimum coal seam thickness would increase.

18.5 Effect from Outside Influences

No environmental, permitting, legal, title, taxation, or political issues are known to exist or appear likely in the future that would affect this resource estimate. The Mongolian government has demonstrated itself to be in favour of resource development as evidenced by the large amount of foreign and domestic activity and their promotional efforts. The caveat could be the worldwide environmental and political drive to limit carbon dioxide emissions.

A change in local and regional markets, by either increased demand from existing markets or new markets for the coal or coal-derived fuels may increase the attractiveness of the Chandgana Khavtgai Coal Resource Area. This is particularly true in light of the current and projected future demand for energy in Asia. This increased demand may bring interest in putting the needed infrastructure in place. Pending additional exploration work, the resource area will be considered of future interest and the resource estimate will remain unchanged.

18.6 Qualified Person

Mr. Kravits is the qualified person for this technical report. He holds Bachelor of Arts and Master of Science degrees in geology. He has 31 years of experience in the coal industry performing coal property evaluations, due diligence, exploration, mining geology, coal marketing support, environmental support, and other duties. He is a Certified Professional Geologist with the American Institute of Professional Geologists, a licensed or registered geologist in four states, and a certified coal geologist by the American Association of Petroleum Geologists. Mr. Kravits is an independent consulting geologist who has no financial or other interest in Red Hill Energy Inc. or its subsidiaries.

Mr. Robeck holds Bachelor of Science and Master of Science degrees in geology. He has five years of experience in the coal industry performing exploration, mining geology, resource estimation and other duties. Mr. Robeck does not meet the requirements for Qualified Person under NI 43-101 but performed all the work to arrive at the resource and coal quality estimates under the supervision of Mr. Kravits who also reviewed the final coal resource estimate.

19 OTHER RELEVANT DATA AND INFORMATION

No additional information or explanation is needed to make this technical report understandable and avoid misleading statements.

20 INTERPRETATION AND CONCLUSIONS

The 2007 Chandgana Khavtgai exploration program largely met its objectives but fell somewhat short in portions of a few objectives. The exploration methods employed resulted in a generally reliable delineation of the location, geology, quantity, grade, and rank of the coal resources in the resource area. The coal resource covers all of the area and is a large resource of moderate grade and low rank in a relatively simple geologic setting. The exploration results show that the coal resource is large and of acceptable quality to justify preliminary market research and mining feasibility studies.

The exploration has delineated the areal extent, depth, and thickness of the coal seams and partings, characterised the general geology, provided information for a reliable estimate of coal resources, and provided basic information to assess potential utilisation, conversion, and extraction methods. The upper coal seams are found in two higher stratigraphic intervals but are thinner and less laterally extensive. The A Coal Seam is the lowest coal seam and is the most laterally extensive and thickest such that it holds most of the coal resource. Further exploration is needed to (1) better delineate coal seam and parting thickness, (2) better locate the subcrop of the A Coal Seam and the upper coal seams, (3) place more of the coal resource into the measured and indicated assurance-of-existence categories, (4) better define the structural geology of the resource area, and (5) obtain information useful for a preliminary assessment of utilisation, conversion, and extraction methods. These are described in more detail in Section 21.

Analytical data obtained from core samples and trench samples of the A Coal Seam enabled a generally reliable estimate of in-place coal quality and rank and some information to assess potential end uses. The analytical data showed the A Coal Seam contains moderate amounts of ash, heating value, and sulphur and classifies as an apparent subbituminous C (ASTM D388) rank coal. From a coal combustion perspective, the A coal Seam has moderate ash and sulphur dioxide loadings. The core samples were obtained from a sufficient number of drill holes that are moderately well distributed about the resource area. Yet, some core loss and the lack of core from the upper portion of the A Coal Seam in some drill holes are why the estimated coal quality cannot be considered fully reliable. The trench samples helped in determining the depth of weathering. Analyses of more complete samples though, will probably not substantially change the coal quality estimate or rank determination.

The conclusion of Mr. Kravits is that the amount, density, quality, and type of data are adequate to provide a generally reliable estimate of coal resources, grade, and rank. Further exploration will not significantly decrease or increase the coal resource and coal quality estimates. But, as described above, more information is needed. This additional information should be obtained by exploration that is planned to increase the reliability of the resource and quality estimates and knowledge of the structural geology of the resource area. Also, further samples should be obtained for use in assessing potential utilisation, conversion, and extraction methods.

21 RECOMMENDATIONS

More geologic work is recommended as described below. In addition, preliminary marketing, coal utilisation and mining feasibility studies should be initiated. The geologic work includes more exploration, sampling, analyses, and testing. A preliminary marketing study is recommended to assess potential markets for the coal or possible conversion products. The results of the marketing study will then provide direction as to assessment of the most attractive coal utilisation or conversion methods and the type of preliminary mining feasibility studies, if any. The goals of these recommendations are to (1) place most of the resource in the measured and indicated assurance-of-existence categories, (2) more accurately locate the geologic limits of the resource, (3) enable a reliable estimate of in-place coal quality, (4) provide information that will enable estimation of reserves and coal quality applicable to the most attractive coal utilisation or conversion method and mining method, if needed, once it is selected, (5) provide information useful in marketing studies, preliminary assessment of coal utilisation and conversion methods, and preliminary mining feasibility studies, and (6) provide information that will enable estimation of the market value of the resource. Upon attaining these goals, the market value of the resource area will be significantly increased.

21.1 Geologic Work

Further geologic work is recommended to obtain stratigraphic data, complete and more detailed coal samples, and more thorough analyses and tests.

21.1.1 Exploration

Exploration using drilling, augering, trenching, and geophysical methods are recommended. These methods are described in the following sections and shown on Map 9.

21.1.1.1 Trenching

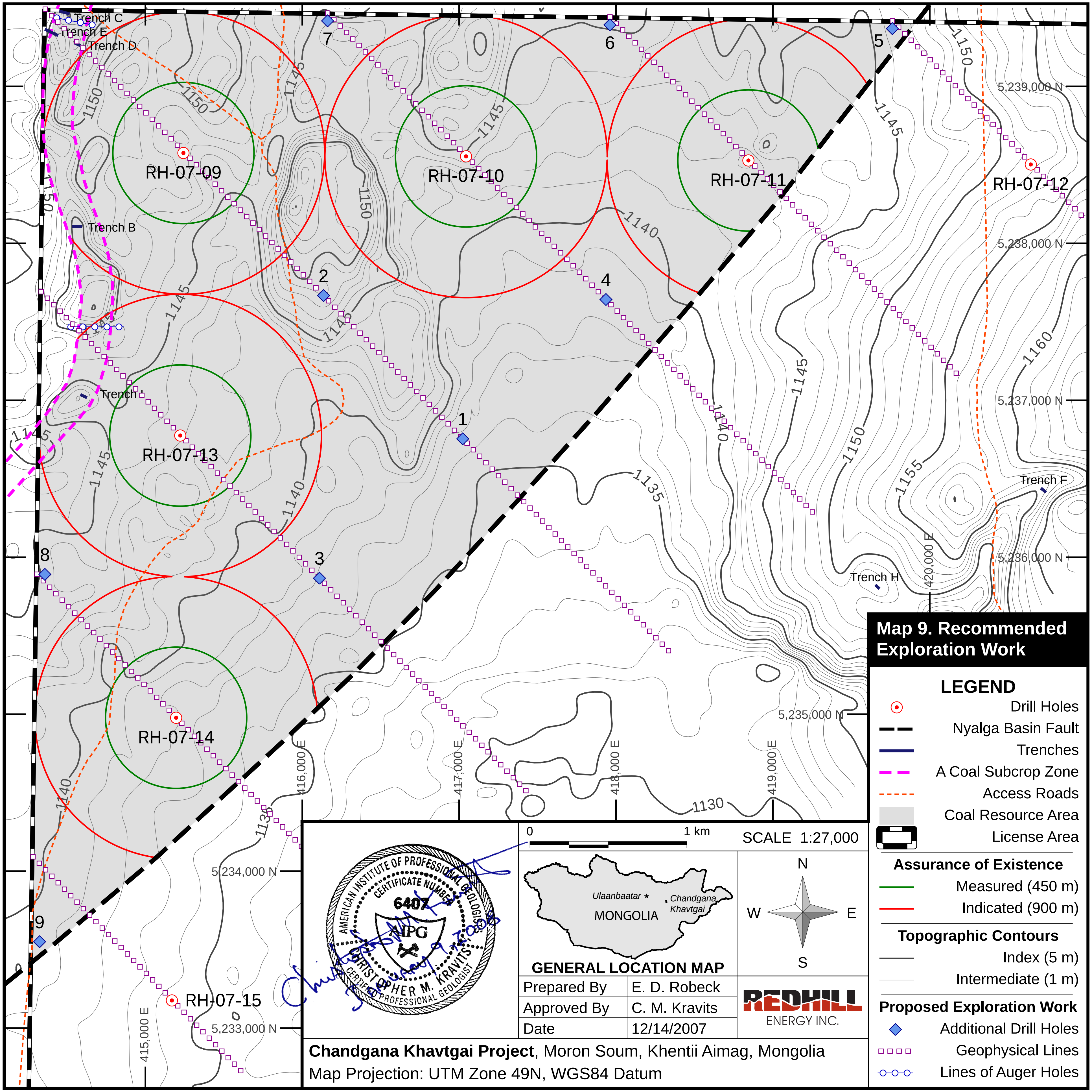
Trenching is recommended at previous Trenches B, D-E and I only as an alternative to augering for determining the location and width of the subcrop and obtaining samples to determine depth of weathering. Whether these are continuous or spot trenches, the amount of trenching would be extensive and likely more costly than augering. But, trenching will be required should a bulk sample be desired to provide more representative analyses and tests. Because of the gentle dip and coal seam thickness the trench will be long in order to sample the full seam thickness.

21.1.1.2 Drilling

Nine new drill holes are recommended to obtain stratigraphic, coal seam, structural, and hydrologic information and place more of the resource in the measured and indicated assurance-of-existence categories. These new drill holes are located in the area that has not been drilled between drill holes RH-07-10/RH-07-11 and RH-07-13/RH-07-14 and along the perimeter of the resource area. These would be drilled through the base of the A Coal Seam. These drill holes should be drilled before the geophysical lines are run.

21.1.1.3 Augering

Shallow hollow stem augering is recommended to better define the location and width of the coal seam subcrops (especially the A Coal Seam), determine the depth of weathering, locate the Nyalga


Map 9. Recommended Exploration Work
LEGEND
Drill Holes
Nyalga Basin Fault
Trenches
A Coal Subcrop Zone
Access Roads
Coal Resource Area
License Area
Assurance of Existence
Measured (450 m)
Indicated (900 m)
Topographic Contours
Index (5 m)
Intermediate (1 m)
Proposed Exploration Work
Additional Drill Holes
Geophysical Lines
Lines of Auger Holes
RH-07-09
RH-07-10
RH-07-11
RH-07-12
RH-07-13
RH-07-14
RH-07-15
Trench B
Trench C
Trench D
Trench E
Trench F
Trench H
1
2
3
4
5
6
7
8
9
5,239,000 N
5,238,000 N
5,237,000 N
5,236,000 N
5,235,000 N
5,234,000 N
5,233,000 N
415,000 E
416,000 E
417,000 E
418,000 E
419,000 E
420,000 E
1130
1135
1140
1145
1150
1155
1160
0
1 km
SCALE 1:27,000
Ulaanbaatar
Chandgana Khavtgai
MONGOLIA
GENERAL LOCATION MAP
N
W
E
S
Prepared By
E. D. Robeck
Approved By
C. M. Kravits
Date
12/14/2007
REDHILL ENERGY INC.
AMERICAN INSTITUTE OF PROFESSIONAL GEOLOGISTS
CERTIFICATE NUMBER
6407
AIPG
CHRISTOPHER M. KRAVITS
CERTIFIED PROFESSIONAL GEOLOGIST
Chandgana Khavtgai Project, Moron Soum, Khentii Aimag, Mongolia
Map Projection: UTM Zone 49N, WGS84 Datum

Basin Fault, and test for buried coal burn. A series of auger holes across the width of the A Coal Seam subcrop at locations between Trenches B, D-E, and I will provide information to accurately locate the subcrop. Two to three short series of auger holes across the suspected trace of the Nyalga Basin Fault should be considered. These may locate the fault based on the depth to bedrock should the fault scarp be preserved below the surficial deposits. Further should coal burn be found when augering to locate the subcrop, additional augering should be considered to map the coal burn if geophysical methods are inconclusive. Samples from all auger holes should be logged in detail. This is especially true for those drilled in the subcrop to determine the depth of weathering because this information will allow comparison to sample analyses to determine whether physical characteristics alone could determine depth of weathering. A sufficiently large augering unit has the ability to auger through the projected thickness of the A Coal Seam and so should be considered as a means of providing usable thickness data close to the subcrop.

21.1.1.4 Geophysical Methods

Geophysical methods are recommended to (1) locate and characterize the Nyalga Basin Fault that bounds the resource area and possible sympathetic faults, (2) assess the existence of other faults within the resource area, and (3) test for buried coal burn. To locate and characterize the Nyalga Basin Fault and search for sympathetic faults, seven geophysical lines are recommended perpendicular to the strike of the fault. The geophysical lines should intersect drill holes where possible. The plan would be to first use passive, surface-based geophysical methods that are fast and inexpensive and require little processing time such as VLF-EM (very low frequency-electro-magnetics), ET (electro-tellurics), CSAMT (controlled source audio-frequency magnetotellurics), resistivity, or gravity methods. Should these be inconclusive, shallow surface seismic or drill hole-to-drill hole seismic or electro-magnetic (e.g., RIM™) methods should be considered. These, also should be located to include those drill holes included where any of the passive methods were attempted. The drilling should be completed before the geophysical lines are run to provide control. Exact location and characterisation the Nyalga Basin Fault at this stage in the life cycle of the resource area is not critical. However, it should be located and characterised with greater reliability than present because of its impact on coal resources and mining feasibility.

Ground (surface) based magnetometer lines are recommended should the trenching or augering discover coal burn. Should the magnetometer results be inconclusive, augering should be considered.

21.1.2 Logging and Sampling

Some modifications to the geophysical logging and sampling plans used in 2007 and new sampling are recommended. These include additional geophysical logs, more detailed core sampling, new auger sampling, trench sampling, and bulk sampling of the full thickness of the A Coal Seam.

21.1.2.1 Geophysical Logging

The geophysical logging suite should be increased to include high resolution density, focused resistivity, dual induction, neutron, sonic, temperature, and flow meter logs. These logs will increase the reliability of coal seam and parting correlations, provide reservoir property information on the aquifer above the A Coal Seam, and provide rock mechanics information. It is understood that several logging passes are needed in each drill hole to obtain these logs and so it may not always be possible. Where it is possible, the information gained will be worthwhile.

21.1.2.2 Sampling

Trench samples are recommended for determining the limit of weathered coal and more importantly to provide a bulk sample for analysis. Those used for determining the limit of weathered coal need only be 1 to 2 kg in size and obtained on 1 m intervals. A bulk sample is recommended because it is far more representative than cores and so make for analyses that are a better indication of in-place and run-of-mine coal quality. A bulk sample would also allow for testing of handling and sizing characteristics, testing of preparation characteristics (moisture, ash, and sulphur reduction), and provide sufficient sample for testing potential coal utilisation and conversion methods. Prior to obtaining the bulk sample, the depth of weathering must be determined to ensure the bulk sample does not include weathered coal. One bulk sample of the full seam thickness is recommended and should be approximately one tonne in size.

Several of the 2007 drill holes should be redrilled to fill the significant sampling gaps remaining from the 2007 drilling. Drill hole RH-07-14 should be redrilled to obtain core samples through the full thickness of the A Coal Seam since no samples were obtained of the upper 25 m when first drilled. Coring of the coal seams in the upper two intervals is also recommended. Drill holes RH-07-10 and RH-07-13 should be redrilled to obtain core samples of the upper coal seams.

The drill core should be sampled in more detail so that coal seam composites can be made that reflect the resource and reserve criteria described in Geological Survey of Canada Paper 88-21. In this way, the stratigraphic interval and specific thickness of coal and partings included in the resource or reserve estimate are the same as that used to estimate coal quality for the particular resource/reserve classification. The coal seams in the upper two intervals should be sampled in a similar manner because they qualify as resources and, more importantly, are very likely recoverable. Further, core of the interburden and overburden rock from one drill hole should be sampled for rock mechanics testing.

Hollow stem augering should be used to provide samples from the subcrop to help in determining the depth of weathering. The samples should be obtained on one to two metre intervals and described.

21.1.3 Analyses and Tests

The recommendations include a change in the analysis plan, re-analysis of the composites from 2007, and additional analyses and tests. These are intended to provide a more reliable estimate of the quality of the resource and of the reserve (if the resource area proceeds to that stage) and probable mining composite intervals and will help in assessing potential utilisation and conversion methods.

21.1.3.1 Analyses

The analysis plan for the drill core samples should be changed to only perform a ‘short proximate’ (moisture, ash, heating value, sulphur) on the individual samples and perform a full proximate on the composites. Analyses performed on the upper coal seams and A Coal Seam composites of two drill holes should include equilibrium moisture, soluble alkalis, sulphur forms, trace elements, and radionuclides besides those previously performed. Coal petrographies (maceral content and vitrinite reflectance) should be performed on composites of the upper coal seams and A Coal Seam from two drill holes.

The instructions to the laboratory must be clear regarding sample retention and the making of composite samples. All of the remaining original and processed material from the samples should be retained for eventual return to Red Hill. Retention of all the sample material will allow other or more detailed analyses to be performed if needed by Red Hill or an interested party. Specific instructions should be provided to the laboratory as to how sample thickness and specific gravity are used to determine the amount of each sample that is added to the composite sample. This would ensure that the composites are made correctly and increase the reliability of the resulting analyses.

The composite samples of the A Coal Seam from the 2007 drilling should be correctly made and re-analyzed. The difference between the original analysis and analysis of the correctly-made composites will be small for the proximate analysis parameters but will be larger for the other parameters. This difference is especially important when assessing utilisation and conversion methods.

The auger samples should be analyzed for proximate analysis, heating value, ultimate analysis, and degree of oxidation by alkali extraction (ASTM D5263). This information will be used to determine whether physical characteristics of the coal could be used to determine the presence of weathering.

The trench samples obtained to determine the depth of weathering should be analyzed for proximate analysis, heating value, ultimate analysis, and degree of oxidation by alkali extraction (ASTM D5263). The bulk sample should be analyzed for the same parameters as the core composites along with sizing and handling characteristics. The trench samples should be preserved and stored using methods appropriate for such samples.

21.1.3.2 Tests

The static water level should be determined in one or two drill holes, flow measured if artesian, and a variety of physical tests should be performed with the drill holes and the samples.

The static water level should be determined reliably at one or two drill holes to provide some information on the potentiometric surface. Further, if an artesian flow is encountered the flow should be measured. Some preparation is needed and plugging materials made available should an artesian flow be encountered. This would increase the cost of drilling but the information is needed for mine feasibility studies.

Rock mechanics and gas tests should be performed on the drill core from one or two drill holes. The rock mechanics tests will provide needed information for mine feasibility and in-situ extraction studies. The gas content and analyses will assist in determining whether gas will be an issue during mining.

Though not an analysis, the amount of sample needed for testing potential utilisation and conversion methods should be determined.

21.1.4 Schedule and Costs

Preparation work for the exploration should start in the fourth quarter of 2007. The exploration activity should start in late first quarter of 2008 and be completed by the fourth quarter of 2008. The recommended schedule and projected costs are shown in Table 12.

EXPLORATION SCHEDULE AND COSTS					
Activity	2008				Cost (CAD)
	1 Qtr	2 Qtr	3 Qtr	4 Qtr	
Re-analysis of 2007 Composites					$2,500
Trenching					$2,500
Drilling-New Drill Holes					$700,000
Drilling-Redrill RH-07-14					$40,000
Drilling-Redrill RH-07-10, RH-07-13					$50,000
Augering					$40,000
Geophysical-Nyalga Basin Fault					$10,000
Geophysical-Other Faults					$5,000
Analyses of 2008 Drill Hole and Trench Samples					$50,000
				Total Cost	**$900,000**

Table 12

The cost for each activity includes indirect and direct costs and the cost of analyses and tests.

21.2 Preliminary Marketing Study

The size of the resource is sufficient to provide base load to one or more power plants, support a coal conversion facility, or some combination of these. A preliminary marketing study is recommended to determine the most likely markets for the coal or conversion products. Potential markets to consider and possible coal utilisation methods include (1) electrical power (via combustion, integrated gasification-combined cycle, below-ground gasification), (2) pipeline gas (via gasification), and (3) liquid fuels (via conversion).

21.3 Preliminary Coal Utilisation and Mining Feasibility Studies

Once the most likely markets are determined, appropriate coal utilisation or conversion methods that would meet these markets should be assessed followed by mining feasibility studies, if needed. These would be assessed only to the point of determining the applicability of the resource size, quality, and geology to the utilisation or conversion method and mining methods.

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